NOVEMBER · 1956
A McGRAW-HILL PUBLICATION
PRICE 35 CENTS

ELECTRICAL WHOLESALING

THE NATIONAL MAGAZINE OF ELECTRICAL WHOLESALE DISTRIBUTION

'HOW I'm Filling a Top Salesman's Shoes'
page 62

'HOW We Beef Up Lighting Sales'
page 70

A Special Report on Wholesaling in CANADA

'HOW I'm Selling a *Really* Different Customer'
page 54

'HOW We're Selling OEMs Profitably'
page 66

HERE'S HOW THE ADVANCE SERVICE-STOCKING DISTRIBUTORS' PLAN WORKS TO BENEFIT YOU

ADVANCE TRANSFORMER COMPANY has appointed over 600 Service-Stocking Distributors throughout the United States who are participating in this nation-wide program. These authorized distributors carry a complete stock of all popular ADVANCE ballasts to give immediate replacement service for any make fluorescent lamp ballast whenever replacement is necessary. Simply bring the inoperative ballast to any ADVANCE Service-Stocking Distributor. The ADVANCE cross-reference guide shows at a glance the replacement needed, and in a few moments, you can be back on the job with the correct ballast.

All ADVANCE fluorescent lamp ballasts carry a two-year warranty and are replaced without charge. The ADVANCE label is your assurance of dependable, efficient performance at lowest cost . . . the result of years of research, engineering and development.

The ADVANCE Service-Stocking Distributor Program enables you to give better service and greater customer satisfaction.

The plan works equally well for all ballast users . . . if you are not now utilizing the ADVANCE Service-Stocking Distributors' Program, write today for complete details.

The Heart of the Lighting Industry

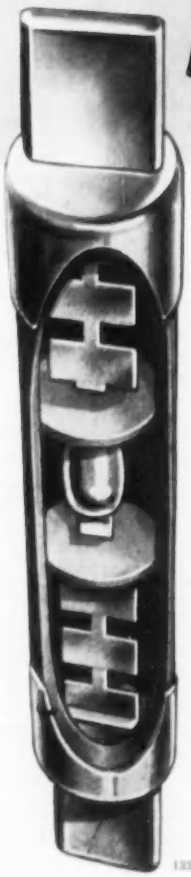
ADVANCE

World's Largest Exclusive Manufacturer of Fluorescent Lamp Ballasts

TRANSFORMER CO.

2950 NO. WESTERN AVE. CHICAGO 18, ILL. U.S.A.

...and here's how you can act on it



Install ECON Dual-Element Cartridge Fuses

Workers and management both lose when harmless overloads cause needless fuse blows, resulting in "down time" and lost production. Econ Dual-Element Cartridge Fuses on motor and branch circuits offer *Double* protection: "timed" protection against overloads . . . and instantaneous action on shorts. *Only ECON Fuses have Econ-Alloy Thermo Element that gives the fullest protection against fuse failures.*

Sold through wholesalers since 1911

Electrical Wholesalers

A good suggestion for you is to be ready with a complete stock of ECON and other Economy Fuses to meet the demand created by advertisements like this in Electrical and Industrial publications.

ECONOMY fuses for every purpose

1339 RW **ECONOMY FUSE & MFG. CO., 2717 Greenview Ave., Chicago 14, Ill.**

Latrobe *Electrical* Products

ADJUSTABLE FLOOR BOXES ARE FIREPROOF

All adjustable floor boxes are equipped with an insulated 14 strand copper wire which provides a positive electrical bond between exposed flush parts and conduit system, conforming to Underwriters specifications.

Once installed, wire cannot come in contact with exposed receptacle terminal screws inside box.

Adjustable Floor Box

Designed for telephone outlet or where permanent connections are made, or as a junction box.

Non-Adjustable Watertight Floor Box

Unique, practical design cuts installation time; makes safer job and leaves more wire space inside box. Cover Plate is 3½" diameter.

LATROBE PIPE OR CONDUIT CLAMP

This new malleable iron clamp with a double safety bite of case hardened tool steel is cadmium plated to prevent rust.
Two models—Right Angle and Parallel support. Each in 10 sizes to handle pipe or conduit ½" thru 4".

Latrobe Products

Non-Adjustable Floor Boxes
Adjustable Floor Boxes
Gang Boxes . . . Cover Plates
Junction Boxes Nozzles
Pipe or Conduit Hangers
Insulator Supports
Cable Supports . Fish Wire
Staple and Cable Clips

Write for new catalog

Sales Representatives in all principal cities

Hultman Manufacturing Co.
1209-1215 JEFFERSON STREET
LATROBE, PA.

LETTERS TO THE EDITOR

A Growing Problem

Dear Sir:

For some time, I have read with considerable interest your articles appearing in the ELECTRICAL WHOLESALING magazine.

Mr. O. R. Woodward's letter in your September issue (Letters to Editor, p. 2) made mention of the small invoice problem.

If you are circularizing your subscribers kindly advise because we would be most happy to make an analysis of a typical month, trusting that we would receive the results of your survey by reason of participation.

This is one of many problems plaguing distribution today.

D. H. FOSTER

TREASURER
ELECTRICAL SUPPLIES INC.
HARTFORD, CONN.

• *EW is now preparing a survey based on the small invoice problem. We appreciate reader Foster's offer.*

How about you? Have you any suggestions for our survey? Send your ideas to this department.

Ads That Sell

Dear Sir:

In the May issue of Electrical Wholesaling, there was an article on "Putting Courtesy Ads to Work" (p. 62).

May we have your permission to reprint this article as an MEWA Management Bulletin?

CARL B. DIETRICH

DIRECTOR, MEMBER SERVICES
MOTOR AND EQUIPMENT WHOLESALERS ASSN.
CHICAGO, ILL.

• *Permission granted.*

Yours for the Asking

Dear Sir:

We are very much interested in your editorial on wholesalers improvement practices, in the August issue of ELECTRICAL WHOLESALING. (49)

Would you please send us the reprints of warehouse layouts and ideas mentioned.

DON CAMPTON

NORTH COAST MERCANTILE CO.
EUREKA, CALIF.

• *Reprints are in the mail to readers Campton and many others. How about you? They're yours for a letter or postcard.*

Something on Your Mind?

Then, write and tell us about it. EW welcomes expressions of opinion from readers—on articles we've published, on industry problems, on just about anything. Write: Editor, ELECTRICAL WHOLESALING, **330 W. 42nd St., New York 36, N. Y.**

Civic Responsibility

Dear Sir:

We are electrical wholesalers, and subscribers to ELECTRICAL WHOLESALING. We have read many of your issues with interest but now we feel we might have something that might interest you.

It is our opinion that in a city as small as Sandusky the electrical distributor must take part in the civic projects of that city.

I am part owner of this business and also the chairman of the industrial development committee. Attached you will find information about Industrial Recognition Week—our latest project. It may give other wholesalers ideas on how they can aid and promote their communities.

HARRY EBERT

BROHL & APPELL
SANDUSKY, OHIO

• *Yes—we agree with reader Ebert on the part an electrical wholesaler must play in civic activities. Here's a description of the Sandusky celebration Brohl & Appell actively supported and contributed time and effort to:*

"Industrial Recognition Week" is scheduled to be held November 9 through November 15, 1956, and will include the following events and activities:

1. Displays throughout the city of all products manufactured in Sandusky.

2. Decoration of the city with flags, banners bunting and signs informing the public that this is Industrial Recognition Week in Sandusky.

3. Open house in all industries for employees and their families and all citizens.

4. A banquet open to all Sanduskians featuring a nationally prominant speaker and awards to outstanding Sandusky industries.

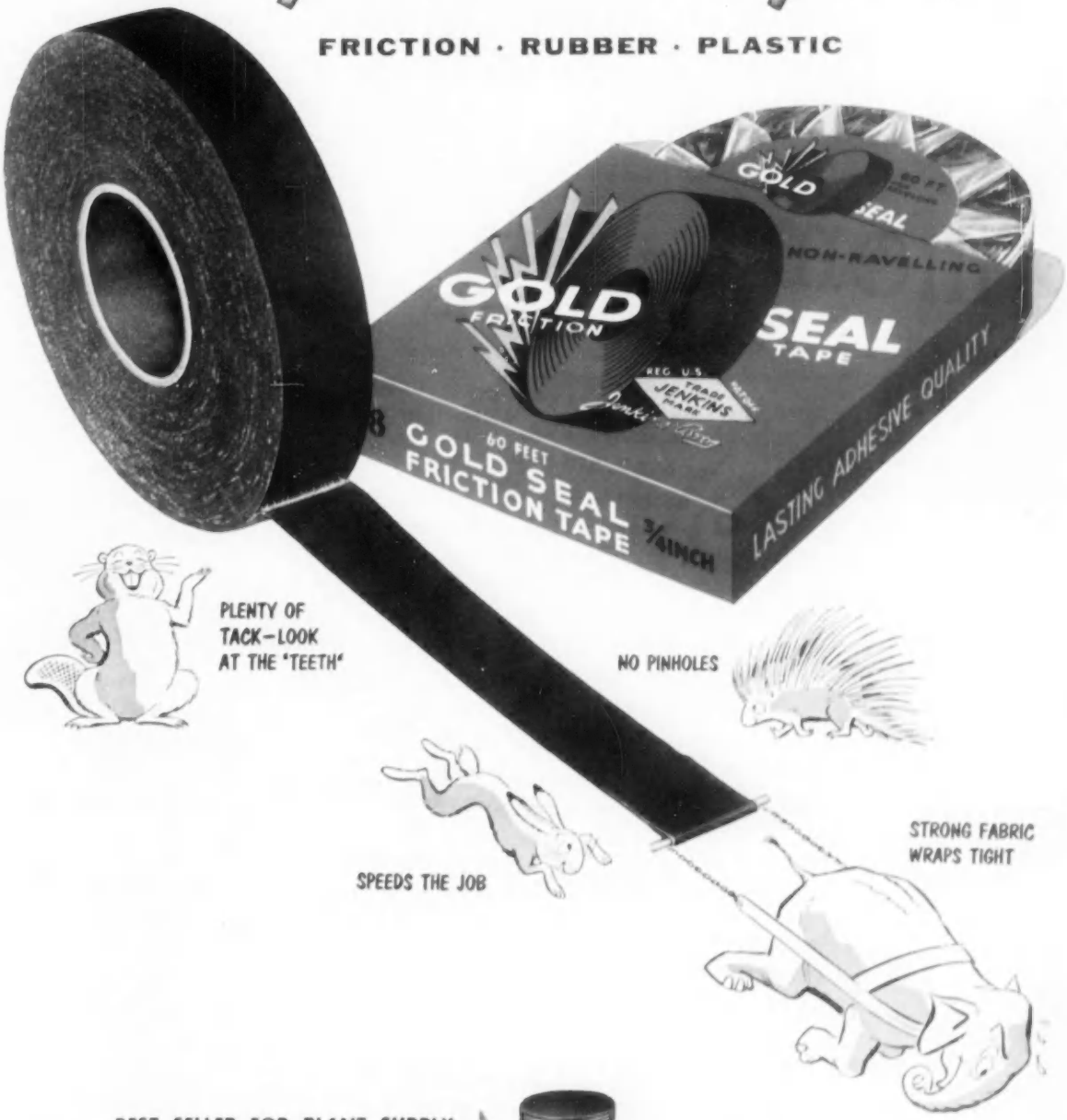
5. Daily feature articles in the press and on radio on payrolls, investment per employee, share of taxes paid by industry, share of civic and charitable funds obtained from in-

Continued on page 118

For top volume . . . in tape sales . . . sell JENKINS

Gold Seal Tape

FRICTION · RUBBER · PLASTIC



BEST SELLER FOR PLANT SUPPLY

All types of **GOLD SEAL TAPE** — Friction, Rubber, Plastic — are packed in 10-roll cartons as well as single rolls. Every roll cellophane-protected, stays fresh. Jenkins Bros., Rubber Division, 100 Park Ave., New York 17.

DIAMOND SEAL
Friction and Rubber Tapes are also made by Jenkins Bros. to ASTM specifications

SQUARE D COMPANY
ELECTRICAL EQUIPMENT
TRINITY 2-0400 6060 RIVARD STREET, DETROIT 11, MICHIGAN

November, 1956

memo
TO OUR DISTRIBUTORS

By this time, you have received your copy of "Square D and its Distributors." We hope you have thoroughly read and digested the contents of this manual. To our knowledge, it is the only policy manual of its kind in the industry.

As a result of the monthly "memo" ads which we have been publishing, we have learned that our distributor partners like the idea of our policy being explained in black and white. We, ourselves, feel that this is the best way to establish the fundamental "ground rules" under which both parties can profit most from our partnership.

You will notice that this manual is not just a statement of policy. It gives the "reasons why" behind each principle involved. We think that's important because, through these policy explanations, our complete philosophy of distribution is clearly defined and becomes a matter of record.

On his next visit, your Square D field engineer will discuss this policy book and its contents with you. He also will have additional copies if you want them.

Sincerely,

SQUARE D COMPANY

Bill

W. J. Moriarty
Distributor Relations Specialist

WJM:mbw

WHOLESALING

THE NATIONAL MAGAZINE OF ELECTRICAL WHOLESALE DISTRIBUTION

GEORGE GANZENMULLER, *Editor*

GEORGE D. FARLEY, *Managing Editor*
DURWARD HUMES, *Associate Editor*
ROBERT S. BUSH, *Assistant Editor*
M. B. FURMAN, *Editorial Assistant*
HOWARD J. EMERSON, *Pacific Coast Editor*
L. E. DEVENDORF, *Art Director*
G. B. BRYANT, Jr., *Mgr., Washington Bureau*
D. M. KEEZER, *Director, Economics Department*
J. F. McPARTLAND, *Technical Consultant*

•

C. B. SHAW, *Advertising Sales Manager*

District Managers
A. B. CONKLIN, *New York*
S. A. JONES, *New York*
CHARLES F. MINOR, Jr., *Chicago*
R. R. REAM, *Chicago*
R. A. HUBLEY, *Cleveland*
EDWARD P. GARDNER, *Philadelphia*
JOHN W. OTTERSON, *San Francisco*
KNOX BOURNE, *Los Angeles*
W. D. LANIER, *Atlanta, Ga.*
GORDON L. JONES, JR., *Dallas, Texas*

W. W. GAREY, *Publisher*

•

ELECTRICAL WHOLESALING
(with Wholesaler's Salesman)

NOVEMBER 1956 VOL. 37, NO. 11

Published monthly by McGraw-Hill Publishing Company, Inc., James H. McGraw (1860-1948), Founder. Executive, Editorial and Advertising Offices: McGraw-Hill Building, 330 West 42nd St., New York 36, N. Y.

Publication Office, 1309 Noble Street, Philadelphia 23, Pa. Donald C. McGraw, President; Paul Montgomery, Executive Vice-President; Joseph A. Gerardi, Executive Vice-President and Treasurer; John J. Cooke, Secretary; Nelson Bond, Executive Vice-President, Publications Division; Ralph B. Smith, Vice-President and Editorial Director; Joseph H. Allen, Vice-President and Director of Advertising Sales; J. E. Blackburn, Jr., Vice-President and Director of Circulation.

SUBSCRIPTIONS: Address correspondence to Electrical Wholesaling — Subscription Service, 330 West 42nd St., New York 36, N. Y. Allow at least ten days for change of address.

Subscriptions are solicited only from persons engaged in wholesale distribution of electrical equipment, supplies and appliances. Position and company connection must be indicated on subscription orders.

Single copies, 35c.; 70c. a copy for special issues. Subscription rate — United States and possessions and Canada — $3.00 for one year; $4.00 for two years; $5.00 for three years. Other Western Hemisphere and Philippines—$10.00 for one year; $16.00 for two years; $20.00 for three years. All other countries—$15.00 for one year; $25.00 for two years; $30.00 for three years. Entered as second class matter May 3, 1951 at the Post Office at Philadelphia, Pennsylvania, under the act of March 3, 1879. Cable address: "McGraw Hill New York." Printed in U.S.A.

Copyright by McGraw-Hill Publishing Company, Inc. 1956—All rights reserved.

NOVEMBER, 1956

Print Order This Issue: 12,674

Selling Supplies For a Dam Site . . . . . **Robert S. Bush** 54
How Dick Robinson made a $40,000 sale to a "different" customer.

Spotlighting Your Markets 56
Brings you up to date on what you can sell to: The Food-Canning Market

The Salesman's Technical Notes . . **W. J. Novak, J. F. McPartland** 58
The subject this month: Wiring Devices—I.

'We Are Staying Downtown' 60
Johnson Electric's "drive-in, pick up service tunnel" builds its city sales.

'I Inherited a Crack Salesman's Top Account' **Dan Holmstedt** 62
New salesman tells what it's like to step into builder-selling shoes.

'OEM Business?—It's 40% of Our Volume' 66
What it takes to sell OEMs profitably as seen by "X" Electric Supply Co.

Industry-Wide Programs 69
A department centralizing promotion news that affects you.

There's More Than One Way To Build a Sale 70
And Crescent Electric's lighting specialists are trying them all—profitably.

They Touched All the Bases 72
Speakers pulled no punches at NAED's western region convention.

How Do Your Sales Compare With This 7-Year Growth? . . 76
A Census of Manufactures yardstick on shipments of electrical goods—'47-'54.

Wholesaling In Canada . . . . . **Durward Humes** 78

WHOLESALERS, ECONOMY GROW TOGETHER 79

TYPICAL WHOLESALE FIRM—TRENDS AND PROBLEMS 80

ELECTRICAL INDUSTRY—IN BRIEF 83
A seven-page special report on how your northern colleagues are doing.

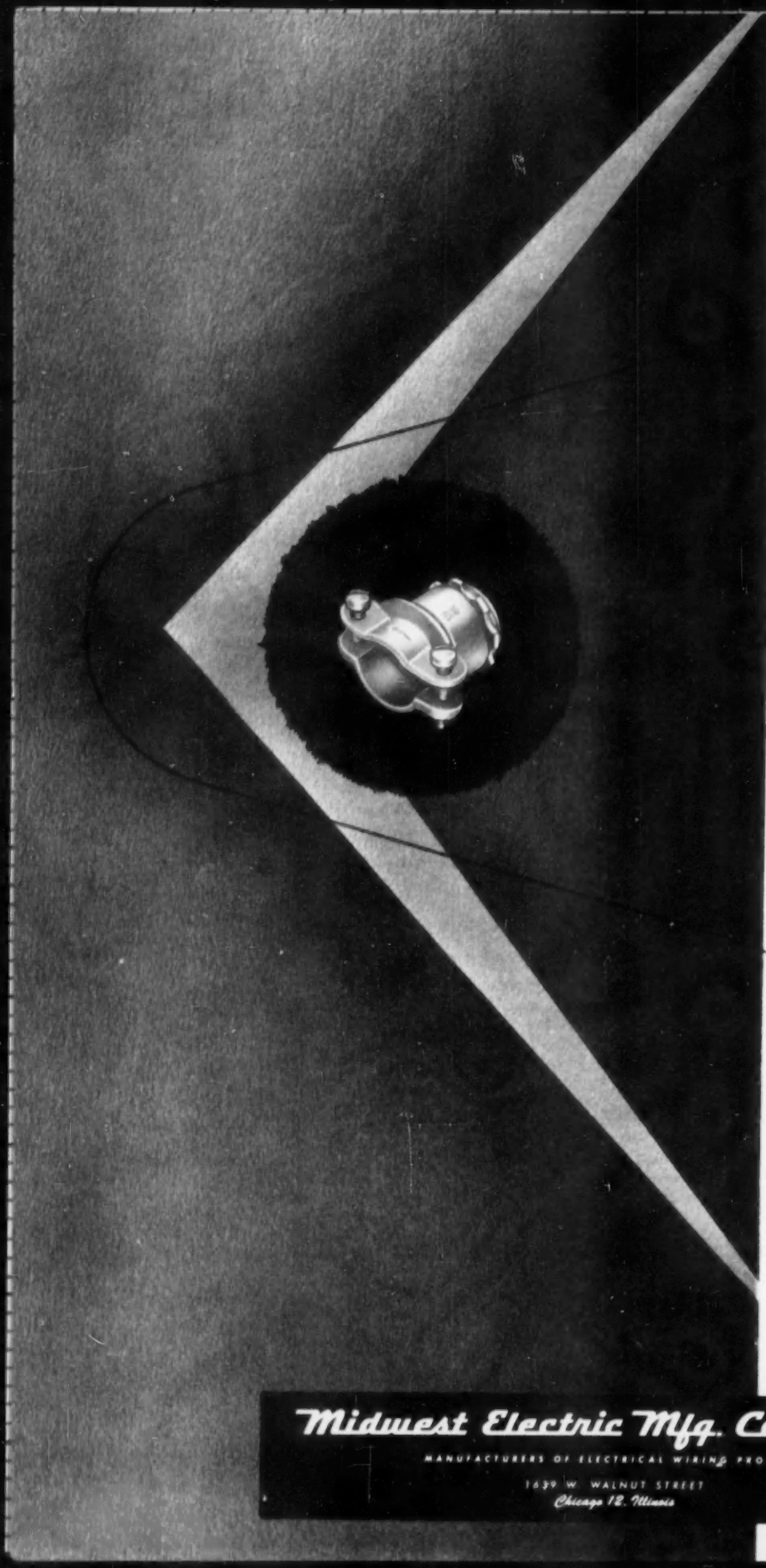
An Editorial 91
"The Shortage of Scientists and Engineers: What Can Be Done About It?"

DEPARTMENTS

Letters to the Editor	2	**What's Happening in Washington**	98
New Products	7	**Business Index**	101
Top of the News	10	**Price Index**	102
Times and Trends	53	**What's New With Your Customers**	105
News for the Industry	95	**Calendar of Events**	151
Chuckle of the Month	97	**Holiday Calendar**	152

NEXT MONTH: New Series on Branch Management

Member ABC and ABP



midwest

A Midwest quality fitting. "Quality" is just a condensed way of saying: "Getting the total job done — right — with the most inexpensive combination of material and man hours." Engineering and producing quality fittings to meet the highest standards of electrical wiring installations, is our objective at Midwest.

MW

Midwest Electric Mfg. Company

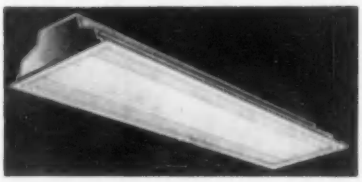
MANUFACTURERS OF ELECTRICAL WIRING PRODUCTS

1639 W. WALNUT STREET
Chicago 12, Illinois

Luminous Ceiling

The Wakefield Co., Vermilion, Ohio

"Magic Ceiling" is new, quickly installed, suspended, luminous ceiling said to provide any area with 50-ft-c of illumination. System substitutes rolls of wakon-vinyl for usual molded acrylic sheets, provides 11 standard sizes from 6x8-ft to 24x28-ft. Vinyl diffusing panels are suspended on aluminum grids with steel perimeter which hangs from lighting channels of structural ceiling. "Magic Ceiling" does not touch walls—eliminates special designing around pipes, columns.



Fixtures

Day-Brite Lighting, Inc., St. Louis, Mo.

A new line of integrated recessed lighting fixtures is said to be compatible with 63 different ceiling systems. According to the manufacturer, the new shallower 12- and 24-in fixtures are designed for acoustical ceilings using exposed runner, exposed panel, exposed grid, concealed mechanical, metal tee-bar suspension and conventional plaster ceilings. A choice of enclosing elements includes plastic Cleartex, egg-crate louver or low-brightness Controlens for 12-in fixtures; translucent plastic, egg-crate louver or glass for 24-in fixtures.

Adjustable Light

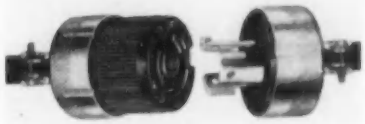
Fostoria Pressed Steel Corp., Fostoria, Ohio

New model 55-VCX-701 Localite has a specially designed reflector which allows for automatic ventilation of heat from lamp. An inner reflector shield accessory is also available for extra cooling when using 100-w lamps. Light itself is adjustable for use on machine tool, assembly and inspection operations.

Ballasts

General Electric Co., Schenectady, N. Y.

A complete line of shallow height ballasts for 430 ma T12 slimline lighting systems is now available with the addition of a ballast for operation of one 8-ft instant-start lamp. All ballasts in the shallow height line are 1-25/32-in in height and represent a weight reduction of from 1- to 4-lbs or more, it is stated. According to GE, the shallow ballasts permit a shallower fixture troffer, and also offer savings in packaging and shipping costs.



Connector

Harvey Hubbell, Inc., Bridgeport, Conn.

"Super" Twist-Lock represents the first major change in design of the firm's lock-type connector in 20 years of manufacture. While the locking principle remains the same, the "Super" Twist-Lock utilizes a new pressure grip terminal design which completely eliminates the need for conventional binding posts and reduces wiring time up to one-third, it is claimed. The new unit is considered an addition to the manufacturer's line; it does not replace the conventional type.

Fixture

Sylvania Electric Products Inc., Wheeling, W. Va.

Development of the first fixture for the firm's VHO (very high output) fluorescent lamp has been announced with distribution expected to begin this month. The 4-ft fixture includes a slotted reflector and upper component. It is made in a special "eye-rest" green color, following the trend in industry to brighten industrial working conditions, according to the company engineers. An 8-ft fixture will also be available in the near future.

Switch

Continental Electric Equipment Co., Cincinnati, Ohio

A new, high voltage, air interrupter switch functions as an air break disconnect with continuous and interrupting ratings to 600-amps at 15-kv. Three front-operated 3-pole types are available: single throw, non-fused, wall-mounted; single throw, fusible, free-standing; double throw, fused or non-fused, free-standing. Compact units with either steel or aluminum cubicles can be easily installed indoors or outdoors.

Deadends

Line Material Co., Milwaukee, Wis.

Two new service entrance brackets, designed for ranch type houses, are being offered by the manufacturer. They are said to clamp securely to the service entrance conduit and provide a sturdy, inexpensive method for deadending service drops.

Conduit Straps

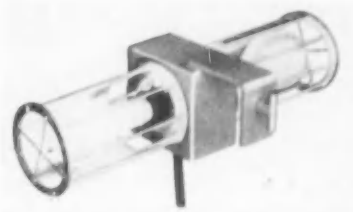
Holub Industries, Inc., Sycamore, Ill.

"Snap-On" metal straps are said to permit neater, faster installations of rigid or thinwall conduit because they do not need to be held in place, are particularly good for overhead work or hard-to-reach jobs. Secret of the "snap" is a bump inside the strap, which causes a slight springing action, holds strap firmly in place.

DC Power Supply

Sola Electric Co., Chicago, Ill.

A new adjustable-output constant voltage dc power supply is called the "DC Solavolt." An important feature of the new assembly is said to be its ability to handle transient or "pulse" loads of up to twice the full load rating of the supply without failure due to severe voltage drop, and without damage to itself. Unit is available in six stock models that provide output adjustable in different voltage ranges between 5- and 400-v and currents up to 7-amps.



Cargo Light

Hoffman Engineering Corp., Anoka, Minn.

High-intensity illumination levels are provided for unloading of freight cars and other freight handling operations, according to the manufacturer. The unit accommodates two lamps up to 200-w size, supports them in rubber mounted sockets, and protects them by plated steel reflector guards, which may be rotated to direct light. Comes with 35-ft of three conductor, type ST, power supply cord and three-prong grounding-type plug.

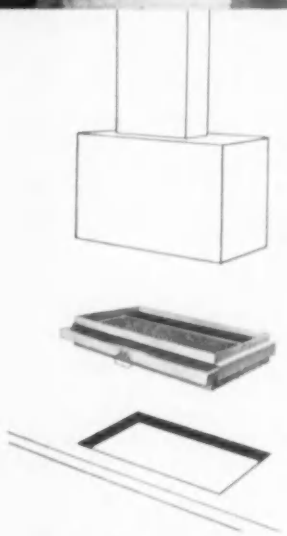
LOOK!

REVOLUTIONARY SLIDE FILTER

For *Trade-Wind* Ventilators

Here's the handiest, easiest-to-sell **new** feature for ventilators installed in a cabinet. The Trade-Wind Slide Filter Mounting Kit (No. 2566) fits both the Trade-Wind 1501 (300 CFM) and 2501 (425 CFM) Ventilators. The filter slides in and out — like a drawer — and is instantly accessible in the cabinet front. Fumbling under a hood to remove and replace grille and filter is now completely eliminated.

Trade-Wind's revolutionary new Slide Filter means convenience, cleanliness and top efficiency — and only Trade-Wind offers you this exclusive feature.



Unique design of the Slide Filter permits either Model 1501 or 2501 to nest into the kit while the kit nests into the hole in the cabinet base. The installation requires no tools.

Trade-Wind Motorfans, Inc. 7755 PARAMOUNT BLVD., DEPT EW, RIVERA, CALIF.

Underfloor Duct

Walker of Conshohocken, Conshohocken, Pa.

New Walker No. 4 duct is large capacity type, 1½x6½-in, with an interior cross-sectional area of 8.75-sq in. It is made from nominal 14 gauge steel, protected with corrosion resistant coating. Duct is furnished in 10-ft lengths with five factory pre-set inserts spaced on 24-in centers. Inserts are threaded on inside to provide secure fitting connections. Blank duct (without inserts) is also available. Large capacity duct is said to meet today's electrical wiring requirements with space to spare for future expansion.

Wire

Circle Wire & Cable Corp., Maspeth, L. I., N. Y.

Aquatherm, a special heat, dampness and moisture-resistant wire, is designed with a higher current carrying capacity than wire of the same size now in common use. It is available in a full range of sizes from 18 AWG to 2 million cir mils. According to the manufacturer, use of Aquatherm results in a savings in fittings and conduit, since it is smaller in size then wire previously used to carry the same load.

Temperature Control

United Electric Controls Co., Watertown, Mass.

Type E27A remote bulb temperature control contains two switches and, in many applications, may be used in place of two separate single-switch controls. Mounting and wiring are said to be simple procedures. Any combination of two normally open, normally closed or double throw switches can be supplied.

Circuit Breaker

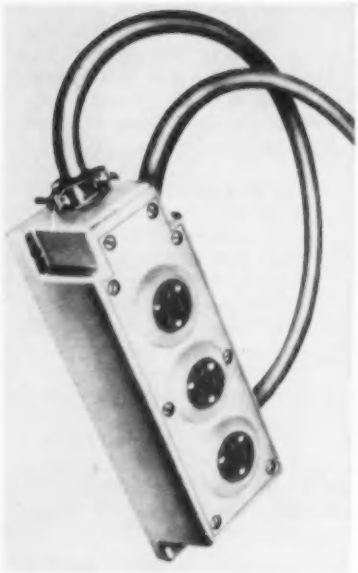
The Wadsworth Electric Mfg. Co., Inc., Covington, Ky.

Newest "E-Z-Red" circuit breaker is a two-pole switching neutral for gasoline service stations. One pole is an independent individually tripped thermal magnetic circuit breaker for protection against overloads. The other pole is an independent non-automatic disconnect switch for disconnecting the neutral. The two poles work simultaneously when operated manually. A wired-in lead is provided and a built-in indicator clearly shows when breaker is tripped and circuit open. Capacities are 15- or 20-amp, 120-v, ac. Breaker is said to meet the NEC requirements and is UL listed.

Voltage Meter

Telematic Industries, Inc., Brooklyn, N. Y.

An inexpensive vest-pocket size "Mini-Test" voltage meter (Model No. VT-101) is completely self-contained, requires no power source and is built for indoor and outdoor use, according to the manufacturer. Clip-on type leads leave operator free while meter is attached. Meter will check unknown voltages from 65-v to 800-v ac or dc. It is considered ideal for trouble-shooting appliances, checking voltage drop, determining adequacy of wiring for air conditioning, etc.



Outlet Box

Daniel Woodhead Co., Chicago, Ill.

New oil-proof portable multiple outlet box, called "Multi-Tap," is said to be outstanding for many applications including construction work of all kinds and industrial assembly lines everywhere. Box is constructed of "safety yellow" Neotex, a synthetic rubber compound impervious to oils, greases and most chemicals. It is non-breakable, cannot scratch or mar surfaces. "Multi-Tap" is available in all popular types of receptacles, has molded-in cord grip at one end of box and has safety yellow cord in any specified length.

Panelboard

General Electric Co., Distribution Assemblies dept., Plainville, Conn.

New heavy-duty power distribution panelboard known as Type QMR incorporates rigidly mounted fusible switch units of the quick-make, quick-break type. The units are of modular construction to permit ready interchangeability. Designed for 600-v ac maximum service, 2- or 3-wire, single-phase and 3- or 4-wire, three-phase applications, the Type QMR can be safely operated in systems having short-circuit capacities up to 100,000-amp RMS asymmetrical when current-limiting fuses are used. Modular units can be provided in ratings of 30- to 200-amp; 2- and 3-pole construction, hp rated for both standard and time delay fuses. Panelboard is UL listed.

Heater-Dryer

Continental Radiant Glass Heating Corp., New York, N. Y.

Electric radiant glass panel with towel bars serves double purpose of heating bathroom and drying stockings, gloves, etc. It can also be used to dry hair after a shampoo. A built-in thermostat permits selection of correct temperatures for different purposes. The unit may be surface mounted or recessed. Its dimensions are 18½x25¾x1½-in; its finishes include chrome, neutral hammertone silver or baked-on oxide for finished painting on the job. It is rated at 625-w, 120- and 240-v, ac only.

Portable Heater

Emerson Electric Mfg. Co., St. Louis, Mo.

New portable fan-type electric heater is available in two models: 1,650-w with a 5,635 Btu output; 1,320-w with a 4,510 Btu output. Compact case is finished in nile green, with chromium plated safety grille. Each model is equipped with built-in automatic tip-over safety switch and automatic thermostat control.

Time Switches

Tork Clock Co., Inc., Mt. Vernon, N. Y.

New series of double-pole double-throw time switches offering heavy-duty capacity is available for applications requiring transfer from one circuit to another, control of mechanically-held connectors or motorized valves and alternation from a high to a low heating control. Ratings are as follows: top contacts rated 30-amp, 3,000-w, 1-hp, 345-va at 120/240-v ac; bottom contacts rated 15-amp, 1,500-w, ½-hp, 175-va at 120/240-v ac. Four basic dial styles are available in flush, watertight and surface mount housings. They are: standard 24-hr on-off dial, astronomic (for follow-the-

Continued on page 150

TOP OF THE NEWS . . . and its significance to you

North of the Border

Canada shares much of our prosperity—as well as many of the current problems that face U.S. business interests. On the plus side, Canadian gross national product is expected to reach a new peak of nearly $30 million this year; the government now sees a larger surplus of income over expenditures than was expected and would possibly be in a favorable position to cut taxes in 1957 (an election year). However, **inflation has reared its ugly head there, too.** Last month the Bank of Canada raised its discount rate from 3¼ to 3½ per cent—"tightening the screws" as the saying goes. The tight money situation has led to general fear that even more stringent credit curbs may be exercised—and dimmed the prospect for large tax cuts. For more on business north of the border—especially electrical wholesaling—turn to page 78.

Selling Up

In an era of bargain basements, supermarkets and discount houses, **Americans are on a luxury-buying binge never before equalled,** reports a survey of retailers, restauranteurs, travel agents and hotel men across the nation. This growing tendency of consumers to buy higher-priced, sometimes higher quality items is not limited to any one field. And it seems that even wholesalers' salesmen are matching the trend toward selling up their customers—whether the buyer is a builder (see page 62) or the town council (see page 70).

Upturn for Downtown

The shopping center boom will come to a halt soon: so say bankers, real estate men and retailers. They blame the tight money market—also the abundance of such centers that have already sprung up around our larger cities. **But—those present cities are obsolete:** so say the city planners. New thinking is needed to save the metropolitan areas—where most of the population growth is expected. And it's not only retailers and city planners who have to face the problems of suburban development v. urban redevelopment—it's a burning question among wholesalers, too. A surprising number are on the move (figures on page 108) but some are sticking to their guns. For an example, turn to page 60.

Production Gains

Industrial production during September climbed back to the record rate of late last year, with October output apparently headed towards even higher levels. Steel production and iron ore output received credit for the major portion of the September increase—and auto assemblies were expected to spur October figures.

The Second Quarter

The national income rose to a record annual rate in the second quarter of this year despite lower automobile sales and farm earnings, according to the Commerce Department. Individual savings grew by $2.2 billion during the same three months, says the SEC. This high rate of saving reflected rising personal income after taxes and some slackening in the growth of individual debt. Mortgage debt went up, owing to seasonal factors. So did consumer debt, in contrast to a net repayment in the first quarter.

Great Expectations

Federal Reserve officials consider the tight money situation caused not by a shrinking of supply but rather by a **pyramiding of demand.** The supply of money and credit is larger than a year ago and demand deposits are being turned over eight per cent faster, one Board member pointed out. Officials still smile on all sound projects and the **FRB intends to supply sufficient funds for essential credit needs.** But they warn of excessive credit expansion and frown on the speculative enthusiasm he said inspires some of the current plant expansion. These prospects are so full of hope for high employment and an ever-rising scale of living that it would be a pity if they were to be lost through failure to grapple with immediate problems, he concluded.

Costs of Automation

Distribution is the key to continued prosperity, says Westinghouse's H. L. Cramer, but distributors may still get caught in the price squeeze caused by automation. Everyone agrees on the importance of the distributor . . . manufacturers are looking to distributors to sell the stepped-up output which automation makes possible. But the cost of handling and equipment is bound to rise as automation spreads. So, distributors face a cost squeeze and the only way they can offset it is to streamline their operations **and handle larger volumes.** In the end, the changes wrought by automation should mean that distribution will have added value.

Profit

from these selling features of

PORTER
VINYL *Electrical* TAPE

PORTER VINYL ELECTRICAL TAPE #107
.008" thick
¾" x 66' roll in metal can,
108 rolls per case.
¾" x 30' roll, 5 rolls per dispenser,
100 rolls per case.
Also in 36 yd. rolls in widths
from ¼" to 3".

PORTER VINYL ELECTRICAL TAPE #110
.010" thick
In 36 yard rolls,
¼" through 2" wide.
Also in widths to
individual specifications.
In cartons, 100 rolls
per shipping case.

- **HIGH DIELECTRIC STRENGTH**
  Porter vinyl electrical tapes withstand high voltages without breaking down. No. 107 has 10,000 volts minimum resistance. No. 110, 13,000 volts minimum resistance.
- **SAVES TIME**
  Quicker than friction and rubber combinations. This vinyl tape does the job of both—in one operation.
- **MAKES NEATER JOBS**
  Less bulky for use in terminal boxes and other confined spaces. Wraps neatly on cable, wire, harness, etc. Adheres readily and contours easily.
- **LONG LASTING**
  Resistant to abrasion, water, acids, alkalies and corrosion. Withstands humidity, high temperatures and air exposure without losing adhesion.

For steady, repeat business, Porter Vinyl Electrical Tape belongs on *your* shelves. Ideal for use on mass assembly of electrical parts, junction boxes, switchboards, electrical motors and fixtures. For extra sales, suggest Porter Vinyl Electrical Tape as essential insulation to every purchaser of electrical tools.

Write for detailed information.

H. K. PORTER COMPANY, INC.

HKP

QUAKER RUBBER DIVISION
PHILADELPHIA 24, PA.

QUAKER PIONEER RUBBER DIVISION
PITTSBURG, CALIF.

Familiar symbols of safety

PROTECTION AT SEA **LIFE BUOY**

FOR YOUR WIRING PROTECTION

Standard-threaded rigid steel conduit is the **only** wiring system approved today by the National Electrical Code as moisture-, vapor-, dust- and explosion-proof for use in hazardous locations and occupancies.

Water, moisture, vapor, dust and dirt must be kept out of your wiring systems if they are to be permanently safe. To assure reliable and positive protection, specify Youngstown Buckeye full-weight rigid steel conduit. It's the accepted standard of architects, contractors and owners who have found its higher quality and long service life provide increased profits and trouble-free performance. It's easy to bend—easy to fish wires through. Its excellent corrosion-resistance guarantees permanent installations. Call your electrical distributor today—his stocks are ample and ready for delivery to your job site.

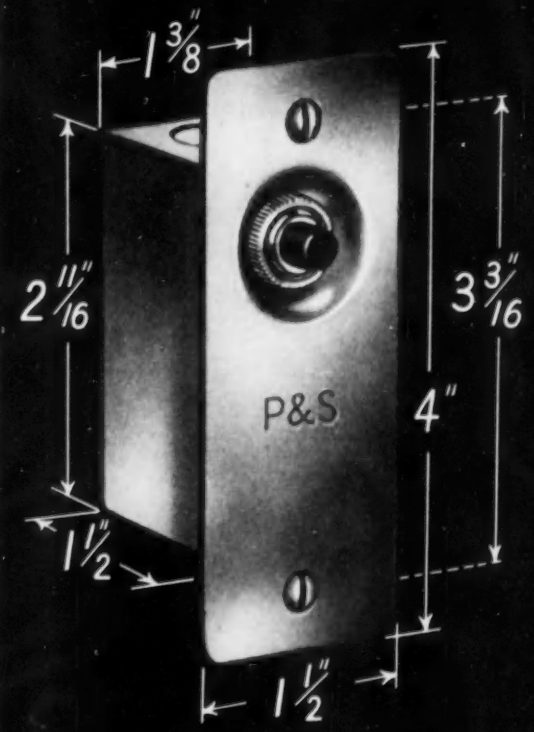
Ask your distributor for Youngstown Buckeye Full Weight Rigid Steel Conduit and Youngstown Electrical Metallic Tubing.

QUALITY YOUNGSTOWN SERVICE

THE YOUNGSTOWN SHEET AND TUBE COMPANY

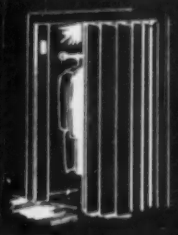
Manufacturers of Carbon, Alloy and Yoloy Steel

General Offices - Youngstown 1, Ohio
District Sales Offices in Principal Cities



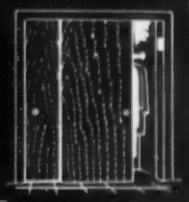
Switches are equipped with wire leads and furnished complete with metal box and cover. Back and end knockouts for easy wiring.

Rating—6 Amperes, 125 Volts; 3 Amperes, 250 Volts



SENSITIVE . . . works at the light touch of *accordion doors!*

COMPACT . . . fits in the *narrowest* of door jambs!



STURDY . . . takes the slams of *sliding* doors!

BOOST SALES with the NEW P&S VERSATILE *DOOR SWITCH*

Boost sales with this new door switch! Just right for all doors, perfect for new homes or remodeling jobs, it's inexpensive, yet surprisingly durable. Contractors will choose the amazingly sensitive P&S #1200 (Light On, Door Open) or #1201 (Light On, Door Closed). Activated by less than 14 ounces of pressure, it operates even under the light touch of accordion-fold doors.

Built to take constant slamming, this new P&S wiring device has a special silver-contact switching mechanism for extra-long life and dependable performance — eliminates call-backs. The fully adjustable plunger compensates for variations in door frames . . . gives leeway in installation. Exceptionally compact, it will fit in very narrow door jambs. Write for full information to Dept. EW-20.

PASS & SEYMOUR, INC.
SYRACUSE 9, NEW YORK
71 Murray St., New York 7, N. Y. 1229 W. Washington Blvd., Chicago 7, Ill.
In Canada; Renfrew Elec. & Refrig. Co., Ltd., Renfrew, Ontario

Jack Bauter gives the same prompt service for phone orders. →

2.

1.

← Personal attention from George Watts starts your mail orders right.

3.

↑ Dottie types them up.

GUTH goes all out to "deliver the goods" ...and on time

↓ Eddie ships them—and out they go—pronto!

9.

4.

← Joe Kernell approves your credit.

8.

↑ Charlie Cintalon expedites them.

5.

→ Charlie Champlin engineers the ceiling layout designs.

↓ Ray Stradal purchases material to fill your orders.

6.

7.

← Cliff Winkler schedules the orders.

From sale to shipment—your orders receive fast, efficient handling by your friends at Guth. They take pride in "delivering the goods".

It's a matter of team work. There's no time-wasting red tape, no unnecessary delays. All orders are processed in one smooth, continuous operation that spells unsurpassed service in the industry; a tradition that has been established by Guth since 1902.

THE EDWIN F. GUTH COMPANY · ST. LOUIS 3, MO.

Guth

TRUSTED NAME IN LIGHTING SINCE 1902

Sikorsky Aircraft's "Plant of the Year"

WIRE BY PHELPS DODGE

This spacious new helicopter plant recently built by Sikorsky Aircraft, division of United Aircraft Corporation in Stratford, Conn., covers nearly 18 acres and can easily be expanded to meet future production needs. A model plant in every respect, it has been cited by *Factory Management & Maintenance* as one of the top ten in the nation for 1956.

One of the requirements for this outstanding Sikorsky plant was an electrical system of the highest quality. That's why Phelps Dodge building wire and cable were installed.

On every wiring job where top-quality performance, expert workmanship and experienced "know-how" are called for, *it pays to rely on Phelps Dodge and your Phelps Dodge distributor!*

PHELPS DODGE COPPER PRODUCTS CORPORATION

SALES OFFICES: Atlanta, Birmingham, Ala., Boston, Buffalo, Charlotte, Chicago, Cincinnati, Cleveland, Dallas, Detroit, Fort Wayne, Greensboro, N. C., Houston, Jacksonville, Kansas City, Mo., Los Angeles, Milwaukee, Minneapolis, New Orleans, New York, Philadelphia, Pittsburgh, Portland, Ore., Richmond, Rochester, N. Y., San Francisco, St. Louis, Seattle, Washington, D. C.

Profits seem to grow on trees...

when you push SANGAMO TIME SWITCHES!

(And you'll gain more satisfied customers too!)

Push Sangamo Time Switches and reap ready profits! Here's why:

You make more money on every Sangamo Time Switch you sell because Sangamo offers a bigger profit per unit.

You have a fast turnover. Actually, you don't have to push Sangamo Time Switches very hard. They're easy to sell—they have ready customer acceptance . . . a reputation for quality that's second to none. They're backed by the biggest advertising program in the industry.

And you gain satisfied customers. Satisfied customers are the backbone of every successful electrical distributor's business. When you sell a Sangamo Time Switch, your customer won't be back with a complaint about faulty operation or failure. Sangamo Time Switches are rugged . . . they stand rough handling. They're engineered quality all the way through . . . just let your customers compare them with other time switches . . . they'll see the difference.

Write for information on the complete Sangamo line—the line with features to solve any time control problem.

SANGAMO ELECTRIC COMPANY
SPRINGFIELD, ILLINOIS

Although Circle is one of the country's largest producers of building wire and cable, customers can still call headquarters direct for immediate personal attention.

WHY CIRCLE CAN "TURN HANDSPRINGS"

on shipments needed yesterday!

Your Circle distributor doesn't have to build any fires under us to get fast action on building wire and cable you need in a hurry.

That's because giving this kind of fast service is a basic policy of Circle's—the result of a flexible organization that's out of sympathy with "red tape," "stuffed shirts," and routine treatment of emergency orders.

When a Circle distributor wires or phones to ask for a shipment "needed yesterday," he knows he can get to anyone from the president on down—and get immediate personal attention.

Chances are, however, he rarely finds himself in that kind of a spot. His own ample stocks of top-quality Circle wire and cable are backed by a nearby completely-stocked Circle warehouse—*one of twenty-two* strategically located across the country.

That is why working through a Circle distributor is always your best assurance of adequate supplies—quickly and dependably delivered to the site. Circle Wire & Cable Corp., 5500 Maspeth Ave., Maspeth, Long Island, N. Y.

Circle maintains a national network of 22 well-stocked warehouses to help your distributor provide fast local deliveries of top-quality building wire and cable.

CIRCLE

WIRE & CABLE

a subsidiary of

Cerro de Pasco Corporation

PLANTS: Maspeth and Hicksville, N.Y. **SALES OFFICES & WAREHOUSES**: Atlanta, Baltimore, Boston, Chicago, Cincinnati, Dallas, Des Moines, Detroit, Houston, Jacksonville, Los Angeles, Miami, Minneapolis, Nashville, New Orleans, Omaha, Philadelphia, Pittsburgh, Portland, Ore., San Francisco, Seattle, St. Louis. **ADDITIONAL SALES OFFICES**: Cleveland, Davenport, Ia., Newark, New Haven, New York, Utica.

RUBBER COVERED WIRES & CABLES · VARNISHED CAMBRIC CABLES · PLASTIC INSULATED CABLES · NEOPRENE SHEATHED CABLES

EXTRA PROFITS FOR YOU AND YOUR DEALERS!

During General Electric's Big 1956-57 Sunlamp Promotion . . . Sell G-E Sunlamps plus Holders. Here's the Story . . .

1956-57 General Electric Sunlamp "Blitz"

GIVES YOU 2 OPPORTUNITIES TO PROFIT!

1 Big profit on $9.95 General Electric Sunlamp

2 Extra Profit on tie-in sale of Sunlamp Holder*

General Electric's 1956-1957 Sunlamp "Blitz" breaks in December, to take advantage of the great sales potential of the G-E Sunlamp as a Christmas gift. This will be followed by powerful magazine and television advertising, plus merchandising and sales promotion help for you during January and February.

Over $3.00 PROFIT per sale! What's more, you'll sell more holders, too, because the G-E promotional emphasis is on *both!* Two related items to sell; twice the opportunity to profit. In a single winter month, one regional chain sold 1,000 General Electric Sunlamps when they featured it with a specially priced holder! Don't be caught short when the big General Electric Sunlamp "Blitz" breaks. Order your supply of G-E Sunlamps today.

**Various manufacturers offer a wide choice of holders.*

The fresh, tan beauty of General Electric's famous Sunlamp Girl will again be featured in G-E Sunlamp ads.

OVER $3 PROFIT ON EACH GENERAL ELECTRIC SUNLAMP SALE

MAGAZINE ADS . . . TV COMMERCIALS . . . POINT-OF-SALE DISPLAYS

MILLIONS of people will see G-E Sunlamp ads in color in these leading magazines, selected to reach those interested in travel, sports, and outdoor living—people who want healthy year-round tans for themselves and their children.

MILLIONS MORE will see G-E Sunlamp commercials on "Cheyenne"—General Electric Lamp Division's new TV show—and the hard-hitting theme is *"G-E Sunlamp Tans Like The Sun, Costs Only $9.95, Low-Cost Holders Available At Your G-E Sunlamp Dealers"*.

FOR POINT-OF-SALE IMPACT to build your profits, General Electric provides colorful window and counter displays of all kinds. Christmas displays available now; more coming for use in January and February. All tie-in with G-E Sunlamp advertising.

GENERAL ELECTRIC

New Rome EMT

FISH-TAPE SLIPS RIGHT THROUGH ROME EMT. No amount of forcing would get a 1/8-inch fish tape through two competitive lengths (behind Rome EMT). Here the same tape is shown as it slides right past all eight 90-degree bends in the Rome EMT.

proved best in fish-tape test

Actual comparison test proves Rome EMT easiest to fish

In recent tests, Rome Cable's EMT came out first in fishability. Disinterested observers checked the results with X-ray photos.

How the test was conducted:

Disregarding the National Electrical Code's limit of four bends, technicians bent a whole series of ten-foot lengths of ½-inch EMT into identical eight-turn runs for testing purposes.

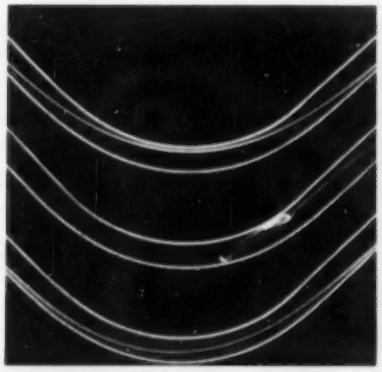
A standard ⅛-inch fish tape was then run into the test samples. It went easily through all eight bends in Rome EMT. In every competitive sample, the tape stuck fast at one of the bends!

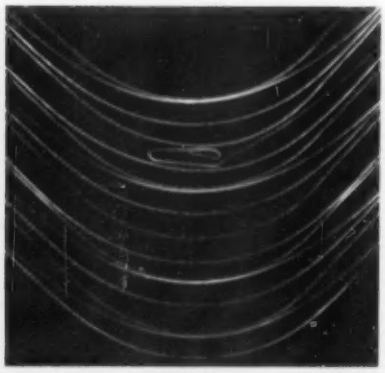
Why Rome EMT is easiest to fish

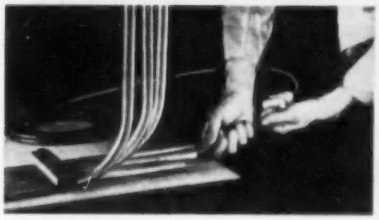
A shiny new interior lets fish tapes slide through with an absolute minimum of resistance. Careful baking—under rigid control—puts a uniformly smooth enamel finish inside Rome EMT.

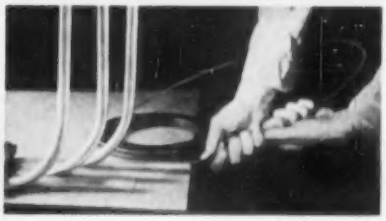
TEST IT YOURSELF. Pick *any* competitive EMT, bend it identically with a length of Rome EMT, and then try the fish-tape test. You'll find that Rome Cable wins every time in this test of direct comparison.

Specify Rome EMT for your next job. Contact your nearest Rome Cable representative for more information—or write to Department 902, Rome Cable Corporation, Rome, N. Y.



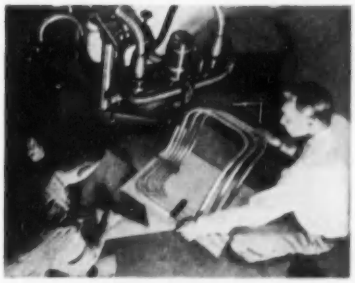






Manufacturer "A" A ⅛-inch fish tape is being forced into this competitor's EMT. The X-ray photo (top) shows how the tape stuck fast on the fourth bend—as a result of a high-friction inside finish.

Manufacturer "B" The same fish tape is being run into another competitor's EMT. The X-ray photo shows the tape—stuck here on the seventh bend. Inside surface resistance caused this tape to stick.

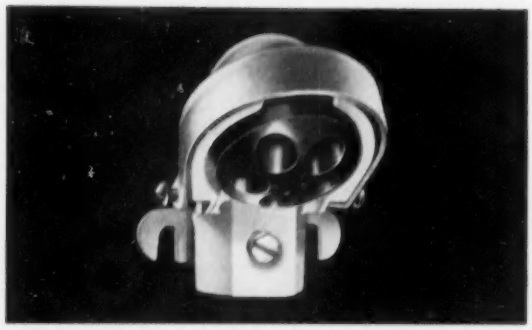


Disinterested Observers from the Anstice Co., Inc., Rochester, N. Y., take X-ray photographs during tests. The photographing was witnessed by Chester Uffelman, Notary Public.

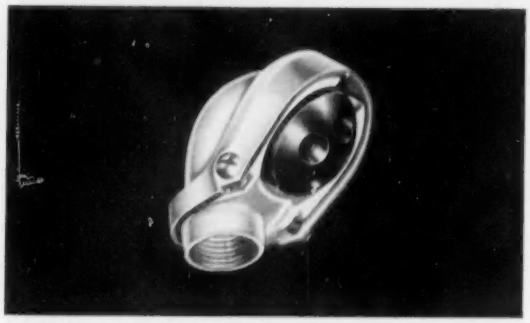
STOCK DISTRIBUTION CENTERS

Atlanta, Ga.
Chicago, Ill.
Dallas, Texas
Denver, Colo.
Houston, Texas
Kansas City, Mo.
Los Angeles, Calif.
Rome, N. Y.
Salt Lake City, Utah
San Francisco, Calif.
Seattle, Wash.
St. Paul, Minn.
Torrance, Calif.

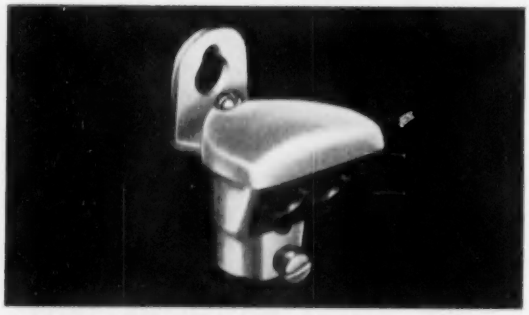
ROME CABLE
CORPORATION



"SPECIAL" ENTRANCE CAP for S.E. cables. With 5-hole insulator. Many inspection authorities require the use of special cables to meet particular requirements such as looking down a yard pole to meter box with a 5-conductor cable. Gedney, accordingly, designed this special entrance cap. Malleable iron; hot dip galvanized.



THREADED CONDUIT ENTRANCE CAPS Like most other Gedney entrance caps, this one is made of malleable iron to prevent breakage . . . hot dip galvanized for maximum service life. Sizes range from ½" to 6".



ENTRANCE CAPS for S.E. Cables—with key hole mounting bracket. Easy to assemble—cable slips into cap and is securely held by clamping shoe. Has split insulator and well bushed holes. Overlapping cover protects cables from weather. Malleable iron, hot dip galvanized.

Cross the threshold to lower costs...with

GEDNEY ENTRANCE CAPS

Malleable Iron–Hot Dip Galvanized

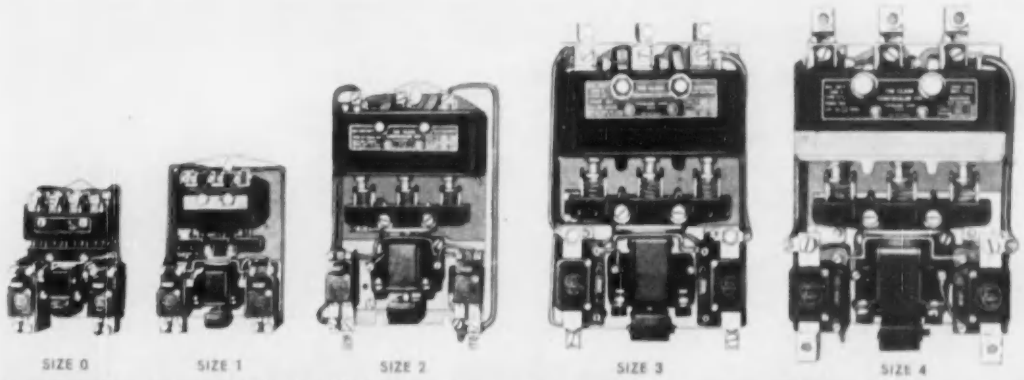
THESE ENTRANCE CAPS install faster—and cut your *final* costs right down to rock bottom. Like all Gedney Fittings they're accurately machined and threaded...smooth finished, with no burrs or metal particles. On top of that, the Gedney line includes many improved design features that bring extra efficiency and labor savings. For fittings that bring today's lowest installed cost, specify Gedney!

GEDNEY FITTINGS FIT

GEDNEY
ELECTRIC COMPANY

GEDNEY

RKO BLDG. • RADIO CITY • NEW YORK 20
Foundry, Factory and Shipping Point: Terryville, Conn.

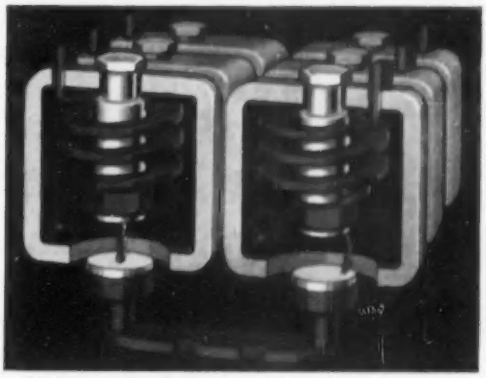


CLARK Type "CY" Starters now available in sizes

0 to 4

With the addition of the new size 4, the famous CLARK line of Type "CY" Magnetic Motor Starters now comprises the full range from 0 to 4. This means that Clark starters of the proven "CY" design incorporating vertical lift magnets are now available for more than 95% of industry's AC requirements. For installations requiring sizes 5 and larger, Clark will continue to supply dependable clapper-type starters.

Clark Type "CY" starters have many outstanding design features for more dependable operation, less maintenance and longer life. For example—rugged construction with twin-break contacts means more trouble-free service . . . contacts can be inspected without tools . . . movable and stationary contacts can be removed and replaced quickly, coils changed and the entire magnet assembly removed—all from the front—without special tools and without removing the starter from the cabinet or panel.



Revolutionary arc-quenching principle is an exclusive feature of all Clark Type "CY" starters sizes 2 and larger. It combines twin-break contacts with strong multi-turn magnetic blowouts which force the arc to rotate—alternately lengthened and confined—so that it moves continuously from a hot to a cold spot on the contact surfaces. This practically eliminates metal build-up or pitting and greatly increases contact life.

For complete information contact your nearest Clark sales office or write us direct.

The CLARK CONTROLLER Company

Engineered Electrical Control

1146 East 152nd Street • • Cleveland 10, Ohio

IN CANADA: CANADIAN CONTROLLERS, LIMITED • MAIN OFFICES AND PLANT, TORONTO

NEW! For distributors who want to stock a fine line of signaling equipment

A brand-new AUTH catalog section ... forty pages of fast-moving items ... bells, buzzers, horns, sirens, non-electric door chimes, transformers, push buttons, annunciators, burglar and hold-up alarm devices, marine signals, two-party telephones, apartment house mail boxes, door openers ... all sold every day.

Any distributor knows the value of carrying such an extensive line. Add to this the Auth reputation for making quality signaling equipment for over half-a-century ... plus Auth's cooperation with the distributor in the sale of complete signaling systems for hospitals, schools, apartments, etc. ... and it all results in one thing ... IT PAYS TO BE AN AUTH DISTRIBUTOR!

For your copy of Catalog Section E call your local Auth representative who will be glad to go over it with you ... or write on your letterhead to Dept. EW-E.

Auth
SINCE 1892

ELECTRICAL SIGNALING, TIME AND COMMUNICATION SYSTEMS FOR HOSPITALS, SCHOOLS, HOUSING, INDUSTRY AND SHIPS

Auth Electric Company, Inc.

LONG ISLAND CITY 1, NEW YORK

New value!

Big market!

R&M HUNTER

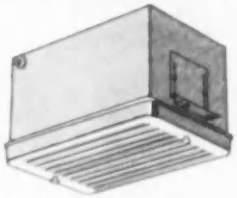
RANGE HOOD

with built-in ventilator

Choice of 3 beautiful finishes

COPPER-TONE BAKED ENAMEL · SATIN-FINISHED STAINLESS STEEL · WHITE BAKED ENAMEL

BUILT-IN VENTILATOR



Also available without hood for ceiling installation

The market for kitchen ventilating hoods is big . . . and getting bigger every day. You can get into this profitable business with every assurance of success by handling the new R&M-Hunter RANGE HOOD.

The RANGE HOOD is priced to sell in volume with full profit margins for you and your dealers.

For complete information, write, wire or phone:

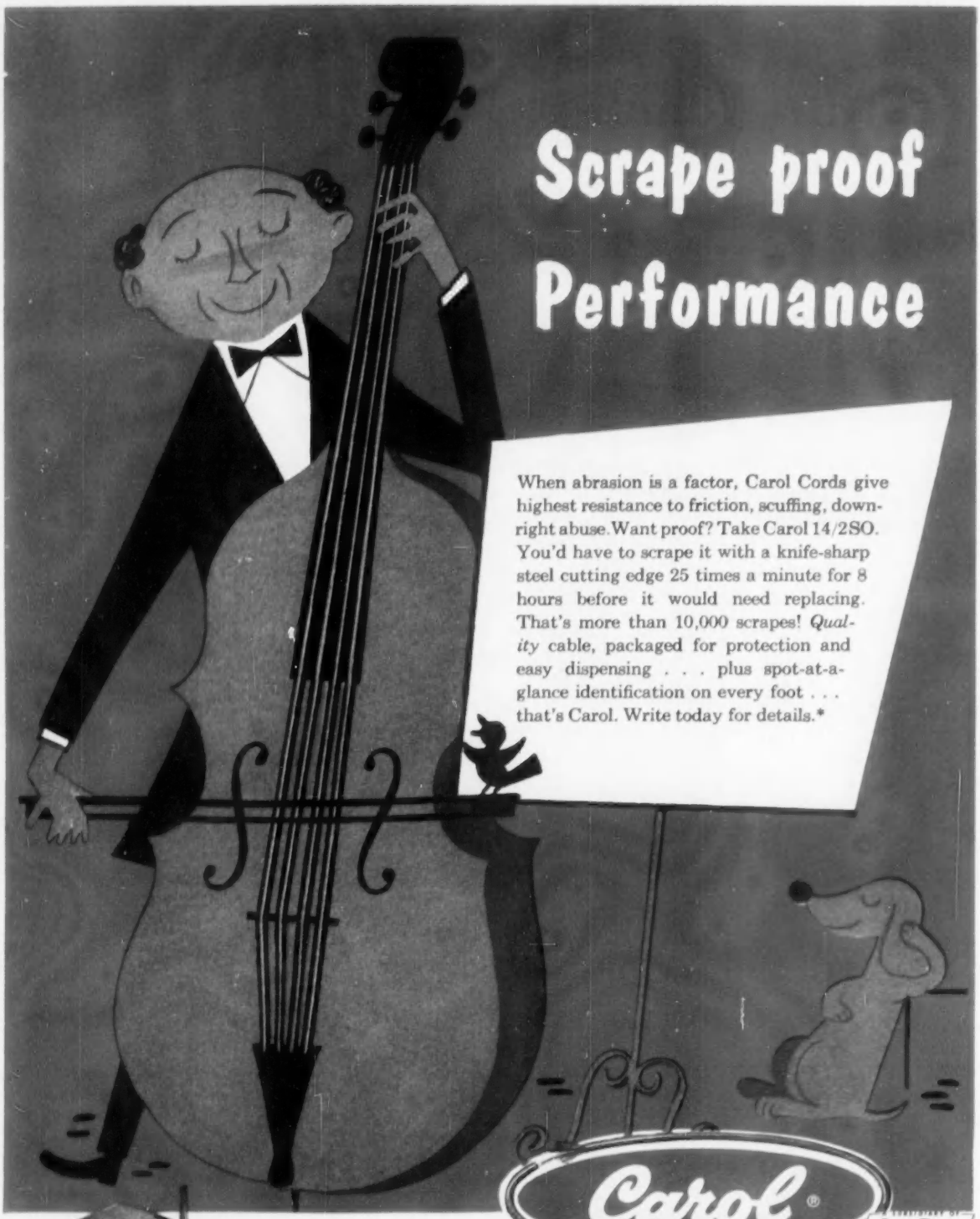
HUNTER DIVISION — ROBBINS & MYERS, INC.
Memphis, Tenn.

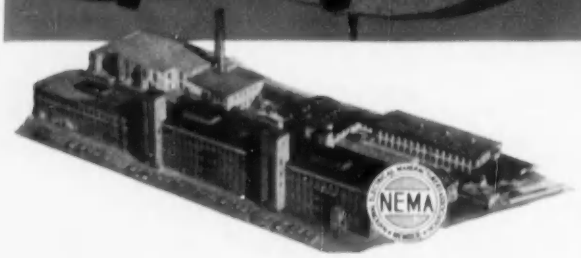
Features like this make sales easy

- Fast installation in old or new homes.
- Ventilator may be located as necessary to permit duct to pass between studs.
- Factory engineered wiring system.
- Radio-shielded motor—listed by U. L.
- Forces out hot air, odors, smoke and steam through outside wall or roof.
- Streamlined design for modern kitchens.
- Illuminates cooking area — lights mounted horizontally below hood to shade eyes.
- Permanent filter, removable for cleaning.
- Sturdy heavy-gauge metal with three durable finishes as listed above.

R & M - HUNTER RANGE HOOD

The R&M-Hunter Range Hood is backed by two of the oldest and best known names in ventilating equipment.





CAROL CABLE COMPANY

Division of the Crescent Company, Inc., Pawtucket, R. I.

Serving Industry for more than 30 years

*FOR COMPLETE INFORMATION, WRITE DEPT. EW.

E. M. T. and rigid

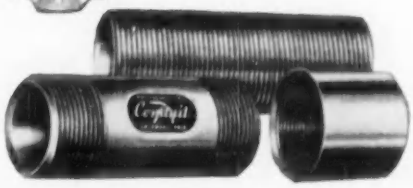
ELBOWS

with smooth raceways for easy fishing

Conduit of COLUMBUS elbows eliminate cable damage, reduce fishing time . . . that's why cost-conscious contractors specify these U. L. approved elbows. Rigid inspection and skilled workmanship assure clear channels, make installations easier. They are carefully threaded to lock out leaks and provide water-tight, trouble-free connections. Conduit of COLUMBUS elbows are precision chamfered for faster starting . . . the result of over a quarter-century of service to the electrical industry.

E. M. T. elbows are made in sizes 1", 1¼", 1½" and 2". Rigid elbows in sizes ½" to 6". Sizes ½" to 2" conveniently packaged in labeled, easy-to-store cartons.

plus this extra service



You can get speedy delivery of all Conduit of COLUMBUS fittings from any of the 10 conveniently located warehouses.

Look for the U. L. label when buying elbows and nipples.

SOLD ONLY THROUGH RECOGNIZED WHOLESALERS

Conduit of COLUMBUS

CONDUIT PIPE PRODUCTS CO., OHIO

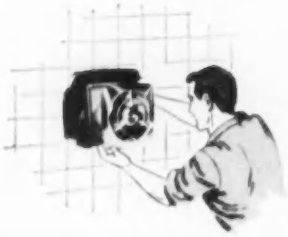
PIPE COUPLINGS • PIPE NIPPLES • ELBOWS, RIGID & E. M. T.
RUNNING THREAD • GOOSENECKS • WALL PLATES

This is <u>your</u> line

. . . oldest name in the industry.

The brand with everything but competition. A model for every need and every budget . . . and a complete line of accessories for every installation.

the electrical trade's own sales star...beamed to 21,000,000 readers



Exclusive snap-in propeller assembly. Easy to install means easy to sell.

$30,000,000 warranty helps you sell, protects your profits.

Victor fans are featured in Show-house in *Saturday Evening Post* and *Living for Young Home Makers*, pre-selling Victor fans to 21,000,000 readers.

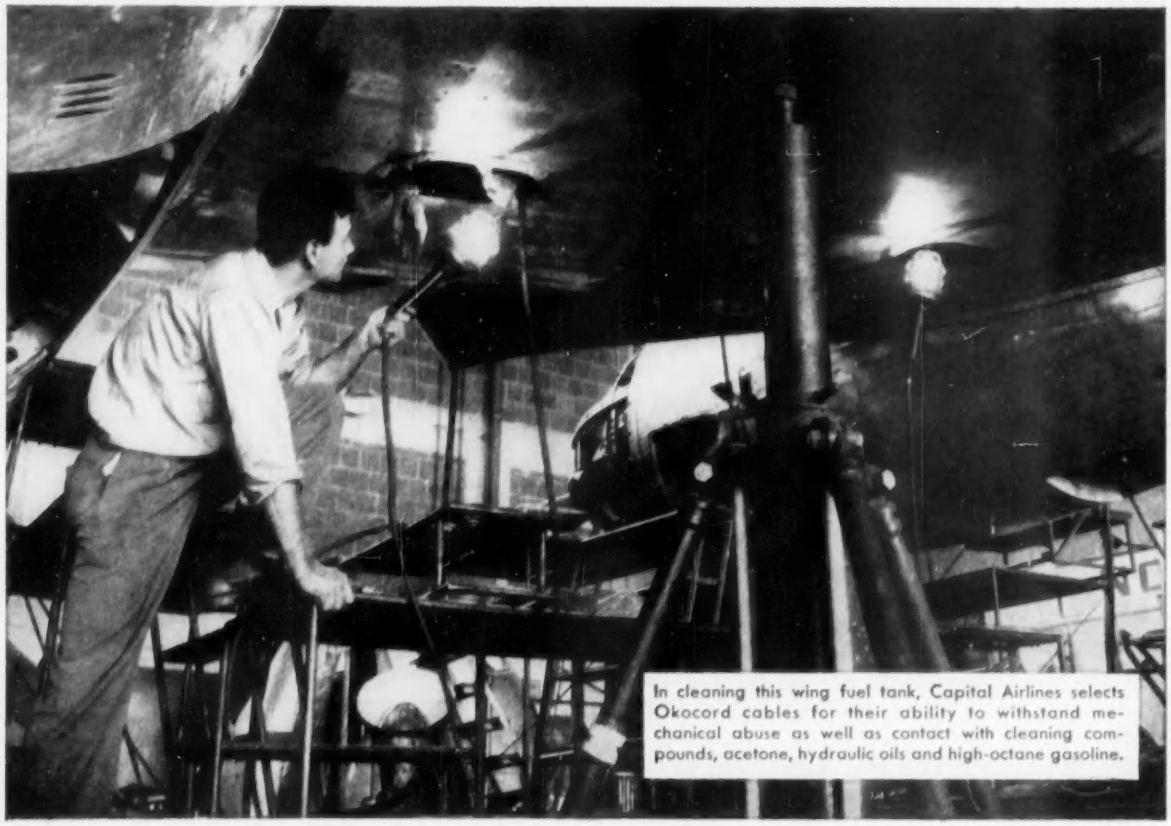
. . . backed by a $30,000,000 warranty to protect your profits

Write for complete-line catalog and price list today.

VICTOR VENTILATOR DIVISION

THE PHILIP Carey MFG. COMPANY

MIDDLETOWN, OHIO



In cleaning this wing fuel tank, Capital Airlines selects Okocord cables for their ability to withstand mechanical abuse as well as contact with cleaning compounds, acetone, hydraulic oils and high-octane gasoline.

where high octane fumes require maximum safety, airline maintenance shop demands Okocord* cables

In 1952, Capital Airlines installed heavy-duty Okocord cables on all their portable tools and explosion-proof trouble lamps. The change was made only after Capital officials had investigated cords supplied by many leading manufacturers and were fully convinced that Okocord provided the safest possible service where high octane fuel and vapors were present.

Today, the company still uses Okocord exclusively for this type of work. According to Capital's Safety Director, C. F. Schaub, here's why:

"The cords used in aircraft maintenance work get rough handling and frequently come in contact with chemicals, such as cleaning compounds, paint thinner, acetone and hydraulic oils, that weaken cord sheaths badly. Then, too, you've got to use these cords inside plane wings and parts of the fuselage where gas vapors are highly concentrated. It doesn't take much imagination to guess what'd happen if a cord shorted there. We have to use the very safest—Okocord!"

Okocord can help you solve your cable safety problems too. For full details, contact your nearest Okonite representative or write for Bulletin WH-451. The Okonite Company, Passaic, N. J.

3171-A

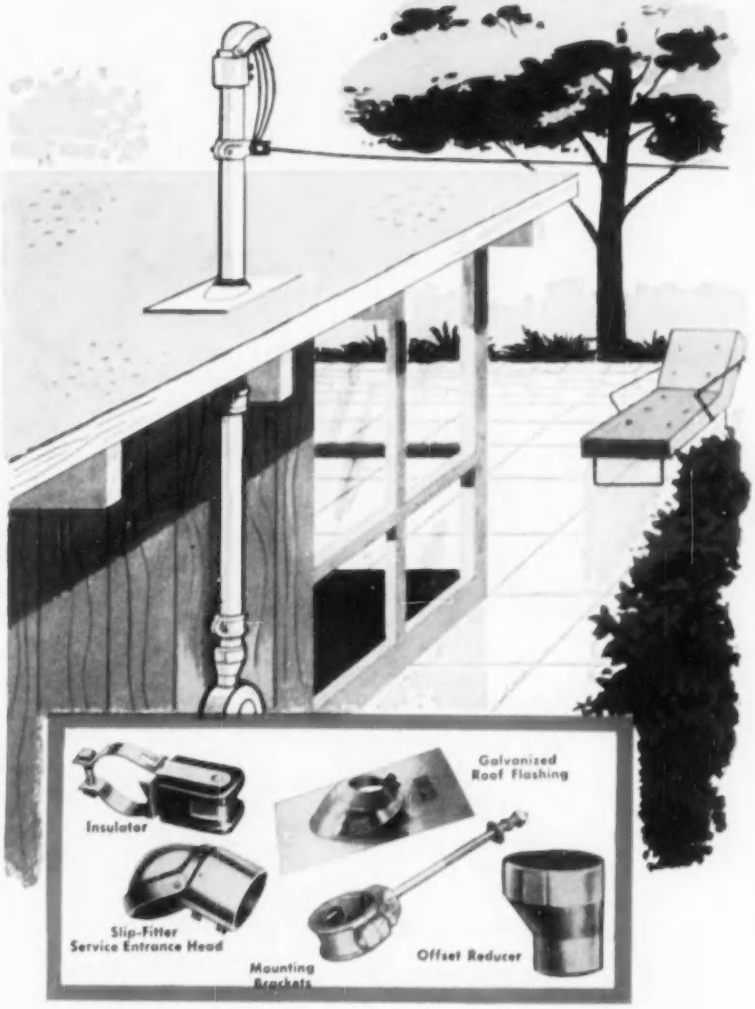
*This product formerly carried the trade name Hazacord

where there's electrical power . . . there's **OKONITE CABLE**

Sell more than a service entrance mast

Sell Blackhawk

ease of installation



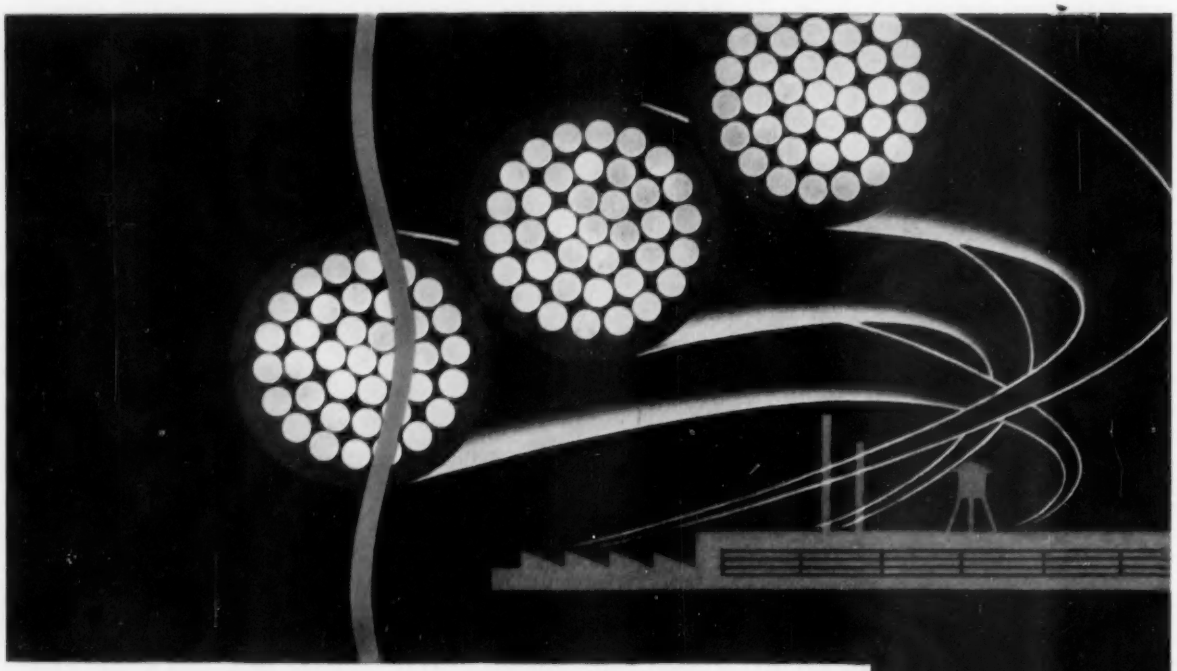
Sell more than just a Service Entrance Mast . . . sell ease of installation . . . sell a savings on the job of time and money . . . see the Blackhawk Service Entrance Mast. Blackhawk . . . with Slip-Fitter service entrance head that slips over the conduit . . . needs no threads . . . no extra clamping devices . . . no special installation tools. It simply slips over the conduit and tightening the two set screws holds the head securely in place. Blackhawk . . . with new combination 2" and 2½" slip fit unit with 1¼" service entrance cap.

The Blackhawk Service Entrance Mast can be sold as a complete kit or as separate fittings! But remember to sell your customers ease of installation . . . an on the job savings in time and money . . . a complete, weathertight unit . . . Blackhawk Service Entrance Mast.

Blackhawk Industries

BLACKHAWK INDUSTRIES

DUBUQUE, IOWA



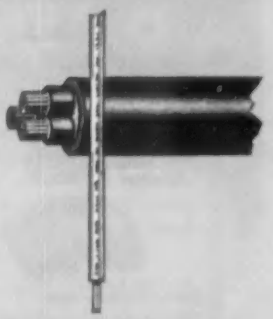
Paranite--AND THE INVISIBLE INGREDIENT

● Manpower is essential to production . . . but what is more important is the attitude of the individuals who comprise that manpower. At Paranite, you will find everyone sincerely interested in his part in the manufacture of our wire products.

This conscientious attitude is difficult to see . . . or feel . . . yet it contributes much to the high degree of perfection Paranite products have reached. This, we believe is another important phase of the *invisible ingredient*.

With an entire organization striving to produce each day a better product than the day before, Paranite has earned through the years the respect of contractors and wholesalers everywhere. In fact, these men . . . having long experienced the dependability of Paranite wire products . . . coined a phrase: "If It's Paranite, It's Right!"

So specify Paranite, knowing that the wire and cable you receive is as nearly perfect as human hands can produce . . . utilizing modern equipment and cautious testing. This is the *invisible ingredient* . . . working for you!



From POWER CABLE to FIXTURE WIRE . . . you'll find Paranite quality high . . . service outstanding!

PARANITE WIRE AND CABLE

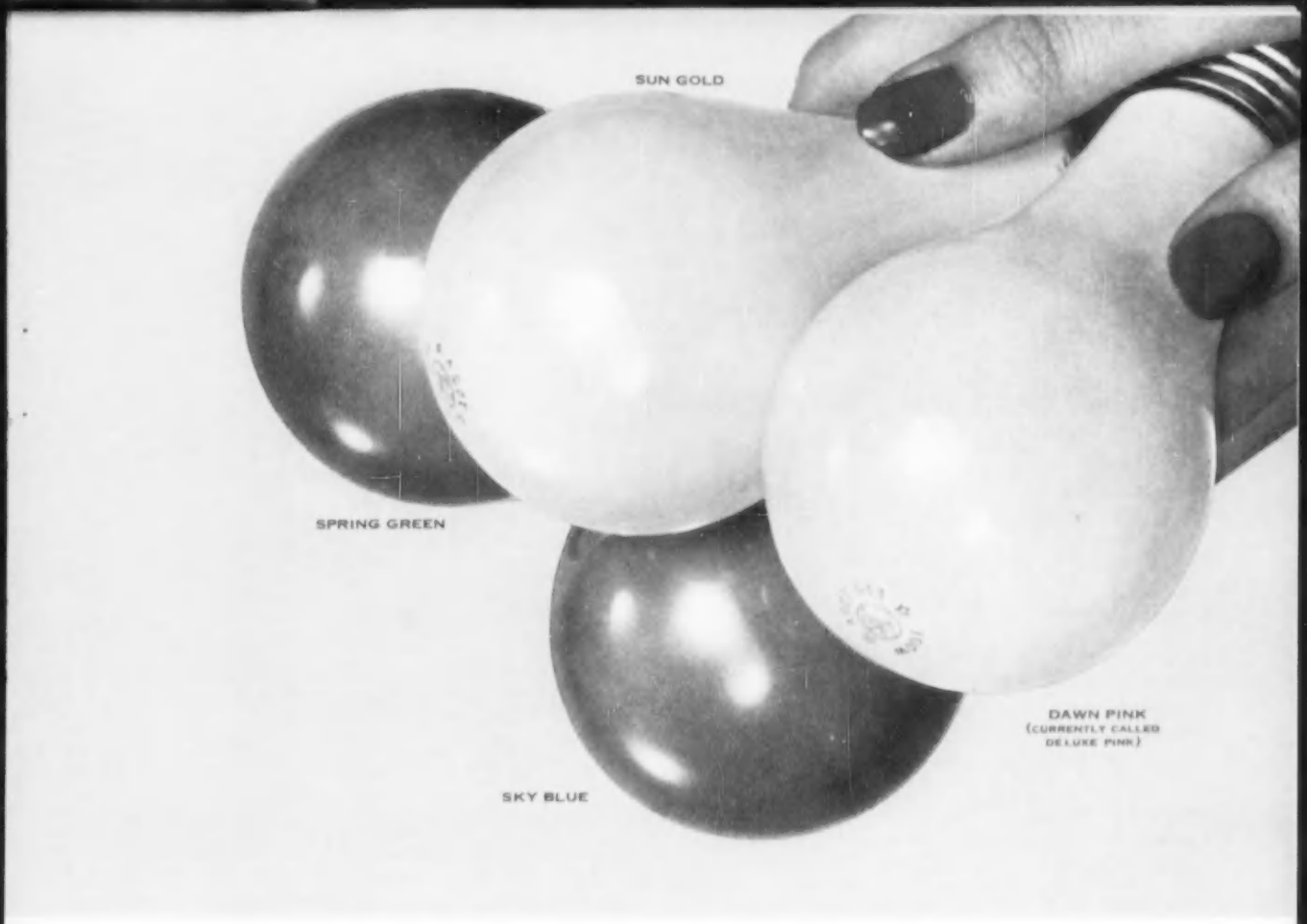
DIVISION ESSEX WIRE CORPORATION

FORT WAYNE 6, INDIANA

MANUFACTURING PLANTS: **Birmingham, Ala.; Anaheim, Calif.; Jonesboro, Ind.; Marion, Ind.**

Warehouses* and Sales Offices

*Atlanta, Georgia; Boston, Massachusetts; *Chicago, Illinois; Cleveland, Ohio; Dallas, Texas; *Detroit, Michigan; Hartford, Connecticut; Indianapolis, Indiana; *Kansas City, Missouri; *Los Angeles, California; *Newark, New Jersey; Omaha, Nebraska; *Portland, Oregon; Upper Darby (Philadelphia), Pennsylvania; Rochester, New York; *Saint Louis, Missouri; *San Francisco, California; Seattle, Washington; Springfield, Illinois.



General Electric proudly announces the glamorous new

Coloramic

line of decorator-approved bulbs that decorate with light

General Electric Coloramic Bulbs:

Create New Interest in Home Lighting!
Increase Sales . . . Increase Profits, too!

Set up your store as headquarters for "home decorating with new G-E Coloramic Light". An average living room may be redecorated with light with approximately $1.50 worth of these new G-E Coloramic Bulbs. With 47,500,000 homes that's a potential market of $71,000,000 for *living rooms alone.* These higher priced bulbs bring bigger profits, too! Turn the page to see what General Electric is doing to help its retail outlets capture the lion's share of this great market.

Remember—Only G. E. Offers Your Customers FOUR Delightful Pastel Colors to Choose From.

SKY BLUE SUN GOLD SPRING GREEN DAWN PINK (CURRENTLY CALLED DELUXE PINK)

The smartest of bold, pastery, colorful, brand new packaging helps make selling easier . . . faster . . . and in larger units.

GENERAL ELECTRIC

LOOK WHAT'S BEHIND

Coloramic Bulbs!

THE STRONGEST ADVERTISING SUPPORT
EVER GIVEN ANY LIGHT BULB!

NATIONAL MAGAZINE ADVERTISING

Better Homes and Gardens
The AMERICAN HOME
LIFE
Look

In November, General Electric's big full color advertising campaign for Coloramic Bulbs will be loaded with sales dynamite—with the nation's leading magazines spreading the news! LIFE magazine, November 12, carries a full page ad. A 4-color, two-page spread will be in the November 13th LOOK. There are two half-page ads in the November BETTER HOMES & GARDENS, and another full-color ad in November AMERICAN HOME. This is only the beginning! More ads . . . lots of them . . . are scheduled for early 1957.

SPECIAL COLORAMIC DISPLAYS ATTRACT ATTENTION . . . SELL BULBS!

A whole array of colorful displays are available to establish your store as *headquarters* for new G-E Coloramic Bulbs. These displays are for window and counter. Special merchandising units, too. Free ad mats also available.

IN 1956-57, IT'LL BE
COLOR, COLOR, COLOR!

And Dealers Who Stock and Sell G-E Coloramic Bulbs Will PROFIT!

ORDER A GOOD SUPPLY TODAY!

TELEVISION COMMERCIALS ON "CHEYENNE"

Twenty seven million viewers, on 117 stations, each week see G-E Bulb commercials on "Cheyenne"—General Electric's new television show which rates third among all 1-hour dramas. Oct. 23rd, 30th and Nov. 20th commercials will be on Coloramic Bulbs. Many more will follow. Take advantage of this powerful preselling! Stock up on G-E Coloramic Bulbs—plenty of each of the four colors—and watch your profits go up!

G-E COLORAMIC BULBS ARE HIGHER PRICED, GREATER SERVICE BULBS with INCREASED PROFITS FOR YOU!

DAWN PINK*, SKY BLUE, SPRING GREEN, SUN GOLD	List Price Each	List Price per Carton	List Price per Case
75 watt	29¢	$1.16 (4)	$6.96 (24)
100 watt	29¢	1.16 (4)	6.96 (24)
150 watt	32¢	1.92 (6)	7.68 (24)
50/150M 3-lite (med. base)	69¢	..	8.28 (12)
*DAWN PINK are currently called "Deluxe PINK" and are also available in these *additional* sizes—			
60 watt	27¢ ea.	$1.08 (4)	$6.48 (24)**
100/300 (mogul base)	89¢ ea.	..	10.68 (12)†
25 watt (flameshaped)	25¢ ea.	1.50 (6)	30.00 (120)
50 GA (decorative)	49¢ ea.	2.94 (6)	11.76 (24)†

**Also in 120 case quantities †Also in 60 case quantities

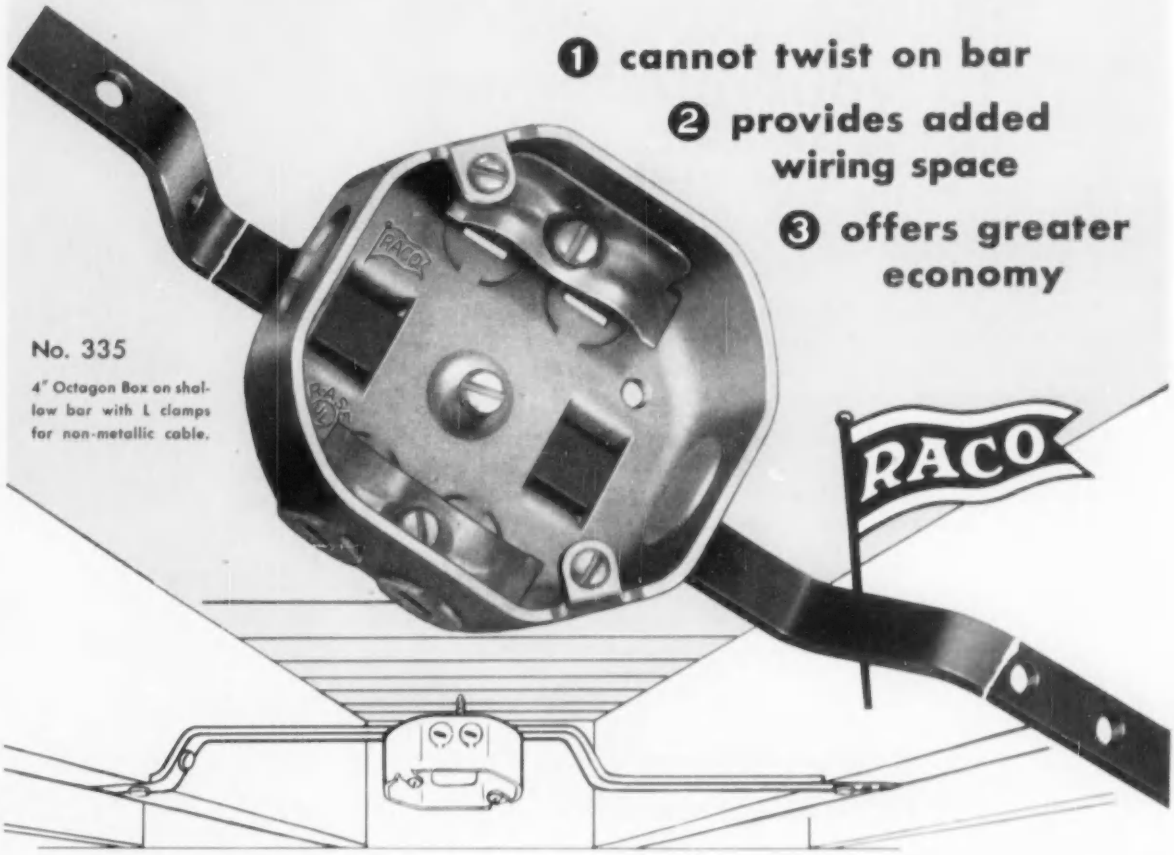
Progress Is Our Most Important Product

GENERAL ELECTRIC

Litho in U. S. A.—320-6480

New RACO NO-STUD SET-UP BOX

SAVES TIME • SAVES MONEY on every ceiling installation!



1. cannot twist on bar
2. provides added wiring space
3. offers greater economy

No. 335

4" Octagon Box on shallow bar with L clamps for non-metallic cable.

USE NEW RACO NO-STUD SET-UP BOXES ON ALL THOSE COMPETITIVE JOBS

CEILING FIXTURES · CLOSET LIGHTS · ATTIC LIGHTS
PORCH FIXTURES · BATHROOM LIGHTS · BASEMENT JUNCTION BOXES
AND SIMILAR INSTALLATIONS

You save money both ways with this New Raco No-Stud Set-Up Box . . . lower first cost and lower labor cost on installation. It enables you to make real money on those competitive jobs.

Hardened set-screw with locking point secures box in desired position. Box cannot turn or twist on bar. No stud means more wiring space . . . faster and easier installation.

Two Popular Sizes

3½" OCTAGON

On Shallow offset bar with Raco L clamps for non-metallic cable only.

4" OCTAGON

On Shallow or deep offset bars. Complete with X clamps for metallic cable or L clamp for non-metallic cable.

WRITE TODAY . . . GET ALL THE FACTS

"A RACO BOX FOR EVERY NEED"

ALL-STEEL EQUIPMENT INC. *Aurora, Illinois*

Now you can offer a free ballast replacement service to your customers,

and make a profit doing it!

Now you can replace an in-warranty defective Sola ballast with any equivalent certified CBM ballast you stock, at a profit! Sola Electric Co. will pay your cost plus *full profit* on the replacement ballast, regardless of brand!

You can offer this new service *free* to your customers, if you are a qualified electrical wholesaler who stocks certified CBM ballasts for over-the-counter sale. *You do not have to purchase or stock any Sola products to participate in the plan.*

How you benefit from the plan

You benefit in other important ways in addition to making a profit. Your customers appreciate the free service you give them, with no red tape. You also gain advertising value and prestige as a result of the free company listing you get in Sola national advertising and direct mail promotions to your customers. Sola provides free promotion materials, too. You can use them to inform your customers and prospective customers of the new free ballast service you offer them.

The quality standard of Sola ballasts

The Sola Ballast Service Plan is made possible because Sola ballasts have an exceptionally low failure ratio. Less than 14/100-of-1% of *all* Sola ballasts fail in warranty and less than 9/100-of-1% of Sola Rapid Start ballasts fail in warranty. This unusually low failure ratio is due to Sola's very high standards of quality in engineering and manufacturing.

Here's how the plan works

1. Should an electrical contractor in your locality find a defective in-warranty Sola ballast, he brings it to you, even though you don't stock Sola ballasts. You check the warranty date from the numbers stamped on the ballast cover. If it failed within two years of its manufacturing date, it is considered defective in-warranty.

CBM CERTIFIED by ETL

Offer this FREE service to your customers and get these free promotion aids

If you would like to be authorized to make your full profit on in-warranty replacements of Sola fluorescent ballasts, fill in the coupon at the bottom of this page and mail it to Sola Electric Co. *There is absolutely no obligation to buy any Sola products to participate in this plan.* Sola's only aim is to make it possible for an electrical contractor, *anywhere*, to get an immediate, free replacement in those very rare instances when a Sola ballast fails in the warranty period.

As soon as we receive your coupon, we will send you a sample packet of "Ballast Service Center" advertising and promotion materials. You can order additional *free* quantities of these promotional aids.

- *A detailed explanation of the Sola Ballast Service Plan.*
- *A Cross Index Ballast Replacement Guide listing Sola ballasts and certified CBM equivalents of other makes.*
- *An identifying door or window emblem and an attractive counter card.*
- *Ballast Service Center letterhead stickers.*
- *Printed proofs of free ad mats available.*
- *A sample of the free direct mail "stuffer" which Sola will imprint free.*
- *A form for your convenience in ordering free quantities of materials in the sample kit.*

2. Sola provides you with a Ballast Replacement Guide. Use it to find an equivalent certified CBM ballast of another make if you do not stock Sola ballasts. You make no charge whatever for the replacement.

3. Have your contractor customer sign a receipt for the certified CBM replacement ballast. Send the receipt to Sola Electric Co. with your invoice. Sola will credit you with an amount equal to your cost plus your regular profit on a sale to a contractor, regardless of the brand of the certified CBM ballast replacement.

4. Within 30 days of the time your invoice is received, Sola will send you a check for the value of all credits due you. If you wish, Sola will credit the accrued amount against any Sola equipment you may wish to order.

SOLA
Electric Co.
4633 W. 16th St.
Chicago 50, Ill.
Bishop 2-1414

TO: SOLA ELECTRIC CO.
4633 West 16th St., Chicago 50, Ill.

As an electrical wholesaler who stocks certified CBM ballasts for over-the-counter sale, I want my company to be listed as a Ballast Service Center in Sola's national advertisements and mailings. I realize there is absolutely no cost or obligation of any kind in accepting this free offer. Please send complete information and free sample kit of advertising and promotion materials to:

My name _____, **Title** _____

Company _____

Address _____

City _____ **Zone** ____ **State** _____

Brands of ballasts stocked _____

NEW

COLUMBIA FLEX-SEAL

GALVANIZED STEEL — VINYL — UNIQUE WIRING PROTECTION

LIQUID TIGHT FLEXIBLE ELECTRICAL CONDUIT

protects electrical wiring

reduces maintenance

insures against costly shut-downs

Manufacturers of Steel Electrical Conduit Since 1912

FLEX-SEAL is ideal for use in chemical plants, food processing plants, laundries, machine shops, and every industrial location where moisture, oils, coolants, chemicals, and corrosive fumes attack ordinary conduit and create hazardous wiring conditions. It can be used indoors and outdoors. FLEX-SEAL bends to small diameters, facilitates work in tight spaces. Sizes ⅜" to 2". Connections made with standard fittings.

J. I. C. Approved

WRITE FOR BROCHURE & SAMPLE

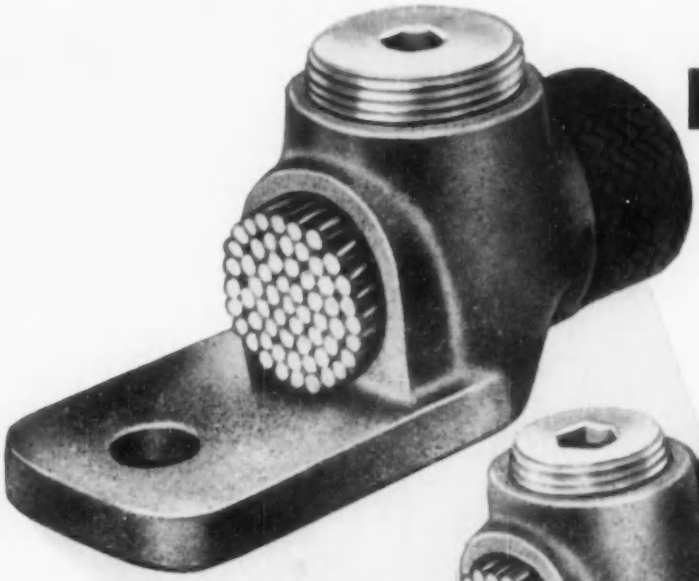
METAL HOSE DIVISION

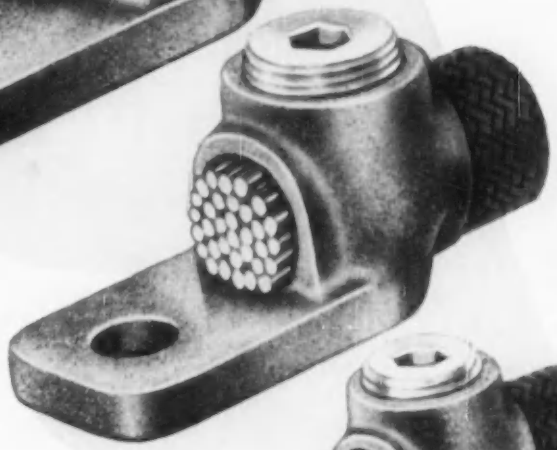
COLUMBIA CABLE & ELECTRIC CORP.

Serving the Electrical Wholesaler Since 1912

255 Chestnut Street — Brooklyn 8, New York

Here's the New ECONOMY Lug with QUALITY improvements ★





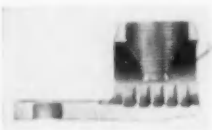
SHOWN ACTUAL SIZE—

The 7 sizes of PennLugs.
Type PNL:
PNL 1000; 500 to 1000 MCM
PNL 500; 4/0 str to 500 MCM
PNL 300; 1/0 str to 300 MCM
PNL 4/0; 1/0 str to 4/0 str
PNL 1/0; 4 sol to 1/0 str
PNL 4; 14 sol to 4 str
PNL 8; 14 sol to 8 str

On all sizes, tongue is NEMA standard

Insulation butts flush, full circle — the PennLug's circular boss gives a snug fit and easier taping.

Annular serrations for higher conductivity and better resistance to horizontal pull — cable is snubbed behind the ridges.



More contact area with the conductor (up to 11% more) than conical, cylindrical or hexagonal bodies.

UL approved in all sizes.

No extra cost for these improvements — prices as attractive as the lugs.

Write for samples of the sizes you are using.

PENN-UNION PENNLUGS

PENN-UNION ELECTRIC CORPORATION • ERIE, PA.

Hawthorn Kiddie Corner, Wheaton, Illinois.

"Virden's new slimline fixture paid off here ...got us the job...made us a profit, too."

Reports Tom Gibson, Gibson Electric Co., Inc., Chicago, Illinois

"Competition was tough on this Wheaton, Illinois job, but your new slimline fixtures helped us get it", writes Mr. Gibson. "First it gave us high quality at a low price and second, we knew we'd save on labor costs because your fixtures are easier to install."

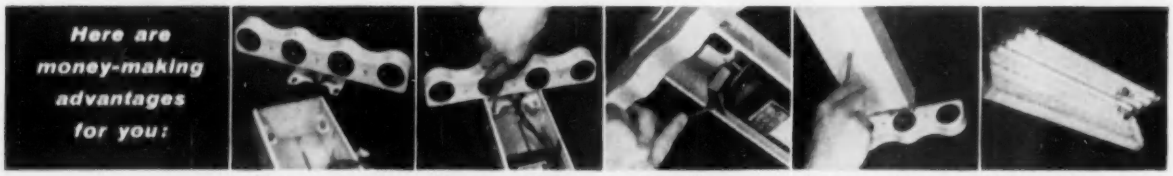
Twin advantages that added up to profits for Gibson Electric Company . . . can do the same for your customers.

For Virden's new slimline fixtures are *high* quality, through and through. Accurately made, from heavier gauge steel, you get a better looking job. They fit true, keep long runs straight.

These new fixtures cut on-the-job assembly time too, *as much as two-thirds*. All screws are pre-set. Parts fit together with a snap, lock tight with a simple twist of a screw driver. The louvered or plastic shielding, when used, is hinged on both sides, for easy cleaning or relamping. **And all these advantages cost no more!**

All Virden fluorescent and slimline fixtures have these time-saving advantages. Tell your customers about the time, work and money-saving advantages they offer. *John C. Virden Co., Dept. EW-11, 6103 Longfellow Avenue, Cleveland 3, Ohio.*

decorative lighting by **virden**



All screws are pre-set. Slip sockets on. Tighten. To change ballast, snap out. A quarter turn locks cover. Shield hinged from both sides.

a "natural" for your Christmas Gift trade!

take guesswork out of wiring with

wire mike

read WIRE, PIPE or CONDUIT size at a glance

- pocket size, 4½" closed, 2 ozs. weight
- heavy-gauge stainless steel
- inside and outside caliper, calibrated in 32nds
- precision-etched direct reading scales
- pipe size to i. d. conversion table
- genuine leather sheath

Frankly, we never intended to get into the WIRE-MIKE business. Our engineers designed WIRE-MIKE as a labor of love—because they felt such a tool was long overdue. We made several hundred for our friends, and thought we had heard the last of it.

Not so. Before you could say "WIRE-MIKE", we were snowed under with demands for this handy tool. So, although it's a little out of our usual line, we decided to put WIRE-MIKE into production at a nominal price.

A few improvements have made WIRE-MIKE better than ever—and now everyone can have this famous precision lifetime tool for measuring conductor (stranded, solid or ACSR), conduit (rigid or thinwall) and pipe sizes **instantly.** Only $1.95 at your Burndy supplier. **Burndy**—Norwalk, Connect., Toronto, Canada. **Factories:** New York, California, Toronto. **Export:** Philips Export Company.

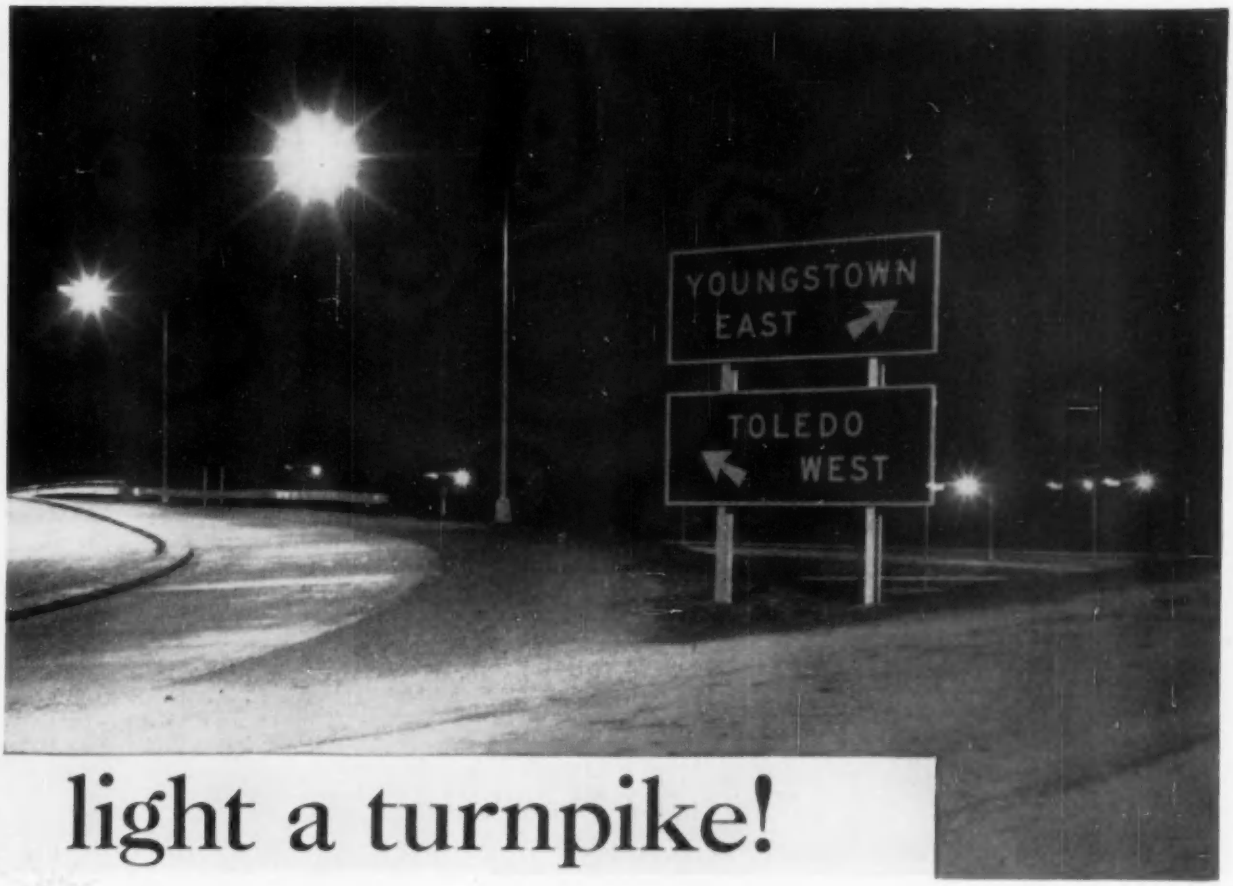
AT YOUR USUAL DISCOUNTS

BURNDY

54-19A

... FIRST name in electrical connectors, tools, methods

HERE'S the way to



light a turnpike!

The new Ohio Turnpike, spanning the state from Pennsylvania to Indiana, is a model of modern highway construction. And one of the outstanding features of this road is the lighting of the interchanges.

What an immense job it was to build this 241-mile road! Enough dirt was excavated to fill a two-lane tunnel 268 miles long. They dumped enough fill to cover 500 football fields to a depth of 28 feet. Carefully the bogs were drained, slides were stopped and the rock was blasted to make the great road possible.

Skillful engineering is apparent along every foot of the Turnpike—and this includes the selection of vital materials used to build it. Buried in the ground near the interchanges you'll find over half a million feet of Tiger Brand 3,000-volt internal shielded cable serving as main feeders. Many thousands of feet of Tiger Brand RR cable serve as bracket cable in the poles, and an additional quarter million feet of Tiger Brand cable grounds the entire system.

When you install Tiger Brand cable, you have gone a long way toward insuring a trouble-free wiring system.

AMERICAN STEEL & WIRE DIVISION, UNITED STATES STEEL, GENERAL OFFICES: CLEVELAND, OHIO

COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO, PACIFIC COAST DISTRIBUTORS • TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA., SOUTHERN DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

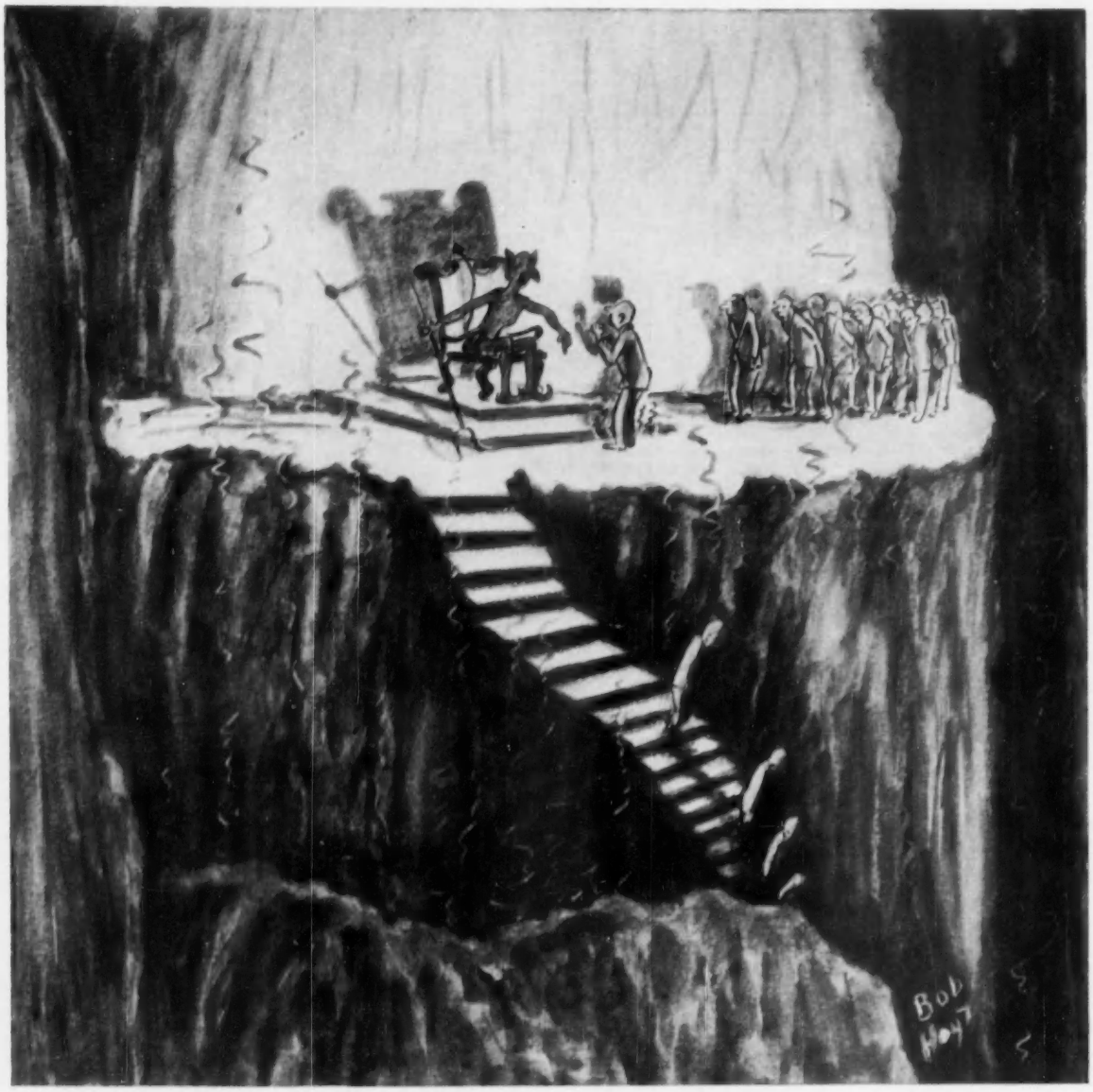
USS TIGER BRAND ELECTRICAL WIRE & CABLE

A STANDARD TIGER BRAND CABLE FOR EVERY SPECIAL JOB

- machine tool and building wire
- special purpose wire and cable
- asbestos wire and cable
- paper and varnished cambric cable
- aerial, underground and submarine cable
- shovel and dredge cable
- mold cured portable cord

UNITED STATES STEEL

One in a series to emphasize the economy of Electrical Wholesale Distribution



"...So why should I think up another torture for you here— you just keep right on trying to buy electrical supplies direct."

"Electrical Wholesaler Distribution reduces the Manufacturer's selling cost and thereby reduces the selling price of electrical supply material to the user. Therefore, our policy has been to distribute Thomas & Betts products exclusively through the Electrical Wholesaler."*

LOOK FOR THIS SIGN — IT'S THE MARK OF AN AUTHORIZED **T&B** DISTRIBUTOR

THE THOMAS & BETTS CO.

INCORPORATED

20 BUTLER STREET, ELIZABETH 1, NEW JERSEY

THOMAS & BETTS, LTD., MONTREAL, P. Q., CANADA

MANUFACTURERS OF FINE ELECTRICAL FITTINGS SINCE 1898

*Quoted from the T & B Plan of Wholesaler Distribution. If you would like to know the complete story of the T & B Plan, write:

GENERAL CABLE'S HIGH QUALITY CONTROL CABLE with IMPROVED COLOR CODING

To preserve the superior physical characteristics inherent in black neoprene, General Cable applies a colored synthetic rubber base coating supplemented, where necessary, by spiral striping over the black neoprene jacket of individual conductors.

This new, carefully developed method of color coding the individual conductors of multiple conductor cable results in superior quality, brighter colors and an extra tough coating for permanence.

Station, Traffic, Elevator and Railway control cables are color coded in accordance with IPCEA Standard color sequence and to customer's specifications.

GENERAL CABLE CORPORATION,
420 Lexington Avenue,
New York 17, N. Y.
Offices and Distribution Centers Coast-to-Coast.

for quality and service . . . specify **GENERAL CABLE**

Jefferson Ballast for 800 MA High Output Fluorescent Lamps

This Jefferson Ballast is designed to give you Full-Rated light output as specified by the lamp manufacturer.

Only Jefferson has succeeded in *designing* and *manufacturing* a ballast for two HO 96T12/RS or two HO 72T12/RS lamps capable of giving *full light* output.

Applications include medium and high bay industrial and commercial locations where high output is required.

It is recommended that surface mounted fixtures be checked for conformance to UL temperature requirements.

Remember—for full light output from the new High Output lamps, insist on Jefferson Ballast No. 254-721!

COMPLETE BALLAST SELECTION DATA

New Technical Bulletin B560-10 gives complete selection data on the entire Jefferson Ballast line in compact, easy-to-use form. Write for your copy today!

PRIMARY 118 VOLTS*—60 CYCLES—HIGH POWER FACTOR

Catalog No.	Watts	Lamps	MA	Approx. Watt Loss	Sound Group	Minimum Operating Temperature	Net Weight
254-721	(2)100/105	(2)96T12/RS	800	38	F	+50°F	13 Lbs.
	(2)85	(2)72T12/RS	800			−20°F	

Length 14 5/16", Width 3⅛", Height 2⅝", Mtg. Centers 13¾".

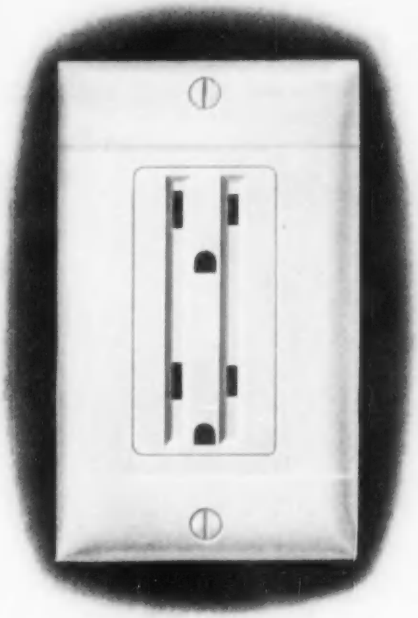
*For 277 Volt lines, specify Catalog No. 254-728.

Jefferson Electric Company

BELLWOOD, ILLINOIS

the look of **tomorrow**—engineered by Sierra **today!**

SIERRAPLEX RECEPTACLES



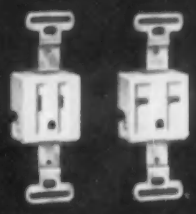
A bold new concept in wiring devices. Designed in response to the demands of style-conscious architects and builders for a Specification Grade, contemporary outlet. Volume sales for you in the growing quality market that has made Sierra products so popular. So distinctive in appearance you know at a glance specification quality units have been used.

- A complete line with matching wall plates
- Visual **Guarantee** of **Specification Quality**
- Illustrated package for easy identification
- Complete promotional program to aid sales
- Sold only through Electrical Distributors

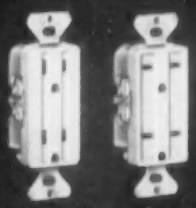
SIERRA ELECTRIC CORPORATION

15100 SOUTH FIGUEROA, P. O. BOX 88

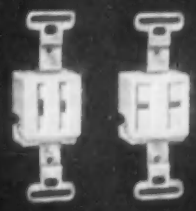
GARDENA / CALIFORNIA



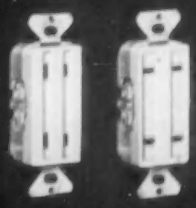
1600 1601



1800 1801



1500 1501



1700 1701

Just in time for Christmas!

Stonco Homelight

for festive holiday lighting, and year-long use in and around the home

Here's a best seller that goes to work in a hundred and one spots inside or outside—for gardens and patios, holiday lighting, driveways, farmyards, for protective lighting—*wherever* you need a versatile, rugged lampholder.

Attractively display-packaged in bright holiday colors. Stonco Homelight is the only bargain-priced spotlight to give you all these outstanding features:

- *Comes complete with all accessories, wall bracket and lawn spike*
- *Cast aluminum—will never rust or corrode*
- *Completely weatherproof with porcelain socket and seal*
- *Six-foot SJO rubber-jacketed cord, with weatherproof rubber plug*
- *Fully UL approved*

Stack and show the Homelight for bigger sales

Homelight's gay counter-display package helps make more sales. Flat cartons stack compactly, open to full view display of the unit.

ORDER NOW FOR IMMEDIATE DELIVERY

And write for the complete Stonco catalog for information on the fullest line of high quality, budget-priced outdoor lighting equipment.

For outdoor lighting—It's

Stonco

STONCO ELECTRIC PRODUCTS CO.
333 Monroe Avenue
Kenilworth, New Jersey

DEAD END WITH

BLACKBURN

W6-2A from 6 Sol to 2 ACSR

This Clamp Will Handle All Popular Service Drop Wires

WEDGE CLAMPS

For Light Service
W6-4A
6 Sol to 4 ACSR

For Heavy Service
W2-OA
2 Sol to 1/0 ACSR

Conductor in contact with wedge for entire length of slider.

Removable aluminum slider allows installation without threading through clamp.

Drop wire can be pre-sagged and cut to exact length needed.

Can be attached to bare neutral at any point in the span.

Your Choice of 3 Bails

STANDARD **FLEXIBLE CAPTURED** **FLEXIBLE FREE**

JASPER BLACKBURN CORPORATION 35 MADISON STREET • ST. LOUIS • MAIN 1-2821

Another **TRIANGLE** *multiple product Job*

PALM BEACH

Palm Beach Towers. Florida's Largest Apartment Hotel

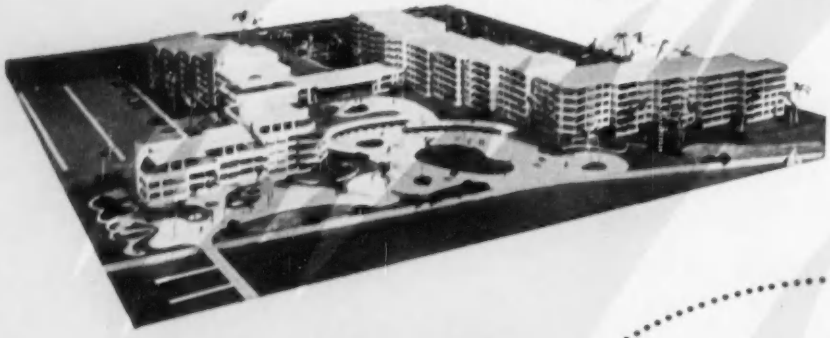
...designed for luxurious year-round apartment living:

1,100,000′ of TRIANGLE WIRE and CABLE
169,000′ of TRIANGLE CONDUIT
52,000′ of TRIANGLE COPPER TUBE

Luxury *demands* Quality. That's why Triangle conduit, wire, cable and copper tube were specified for the job.

Triangle is famous for the finest quality building products that research and modern equipment can produce.

Triangle products are nationally distributed—representatives are located in principal cities in the United States. For your next installation, you'll find it pays to call Triangle!

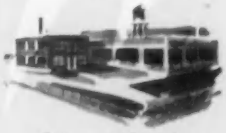


Palm Beach Towers, scheduled for opening December 1, 1956, is completely air conditioned, with restaurants and specialty shops provided to make it one of America's finest resort hotels.

ARCHITECT: John Hans Graham
GENERAL CONTRACTOR: The Taylor Construction Co.
ELECTRICAL CONTRACTOR: Interstate Electrical Co.
PLUMBING CONTRACTOR: Clarence Coston

let's take a quick **TRIANGLE** *look at*

Up to date research



Ever expanding plants

Large stocks in redistribution centers

The Triangle Trademark is your guarantee of quality

It Must Be Right
The Trade Mark of TOP Quality
TRIANGLE

TRIANGLE

Conduit and Cable Co., Inc.

NEW BRUNSWICK, NEW JERSEY

Now...

every

SHAWMUT

fuse has

SILVER-PLATED CONTACTS

at no extra cost

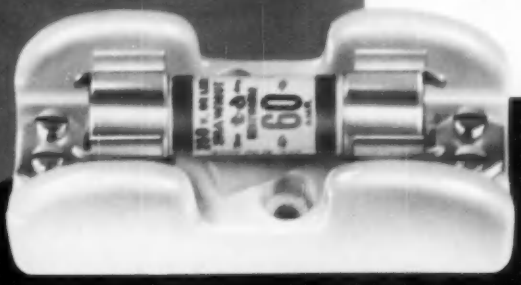
COOLER FUSES — COOLER SWITCHES

Like Amp-Trap and all high quality switch gear, all Shawmut Fuse contacts are now silver-plated. Silver-plating prevents copper oxide formation on contact surfaces — eliminates this non-conductor which is a major source of excessive heat, especially critical in enclosed gear. Silver-plated fuse contact surfaces *alone* give about 90% protection against copper oxide . . . but if fuse holder contact surfaces are *also* silver-plated, 100% effectiveness is attained.

GIVES LONGER APPARATUS LIFE

Corrosive fumes and high temperatures may also oxidize silver, but *silver* oxide, unlike copper oxide, is a good conductor. Shawmut silver-plated fuses installed in panel boards, switches, motor starters, busways and other apparatus waste far less power in heat and reduce maintenance. This should prove of special benefit to steel mills, chemical plants, petroleum installations and utilities.

See Your Shawmut Distributor Now



THE
CHASE-SHAWMUT
COMPANY

374 MERRIMAC ST., NEWBURYPORT, MASS.

Subsidiary of I-T-E CIRCUIT BREAKER CO., Philadelphia, Pennsylvania

Amp-trap®

CURRENT LIMITERS

OVER 60 YEARS

"FROM EDISON TO ELECTRONICS"

THE CHASE-SHAWMUT CO. NEWBURYPORT, MASS.

"PROVEN PERFORMANCE"

A Crucial Question

To move or not to move? That is the question facing many wholesalers today. Forcing a decision, particularly from downtowners, are such slings and arrows as: the strangulation of traffic in crowded city streets, the inability to serve a growing counter trade without sufficient parking space, the mounting inadequacies of an outdated building, the need for expansion room for a growing business, the continuing trek of customers to the suburbs.

Some wholesalers have already made a decision—to move. In fact, a study by ELECTRICAL WHOLESALING reveals that 176 of 1,716 established companies and branches changed addresses during 1954-55 *(page 108)*. That's 10 per cent—surely a high rate for a two-year period.

The trend of wholesalers moving within the same market area is nationwide. At least one establishment in all states but five changed its address in 1954 and 1955. A random sampling reveals that 8 per cent of the wholesalers in California moved during that period, 14 per cent did in Florida, 33 per cent in Idaho, 13 per cent in Indiana, 15 per cent in Maryland, 12 per cent in Massachusetts, 9 per cent in Ohio, 12 per cent in Texas, 16 per cent in Washington, 15 per cent in Wisconsin.

Many of these moves were from downtown wholesale districts to the suburbs. One distributor shifted his operation 14 miles from downtown. Another crossed a river into the next state. Significantly, all wholesalers who have moved outside city centers recently seemed to have gained by their action. "Our counter business has increased over 50 per cent," reports one. "We're stocking more items in 22,000 square feet here than we did in 29,000 downtown," comments another. "Now that we are in the center of our territory, we've cut down delivery mileage—and we make deliveries more often," says a third. Their successes are prompting others to follow. And as a result, the electrical wholesaling map of city after city is swiftly changing.

Some other wholesalers have made a decision, too—not to move. They have carefully weighed the advantages and disadvantages of their present location against what they might gain and lose by a move. Their studies have included pricing potential sites on the outskirts and working out detailed cost surveys of these locations. Then they have concluded that downtown is still the place for them.

A few have fortified their resolution to stay downtown by fixing up the old stand. Perhaps the most radical and realistic idea put to work is the drive-through (EW—Aug. '55, p. 40) or a variation of it, the "drive-in, pickup service tunnel" *(page 60)*. This brilliant innovation is paying for itself fast wherever applied. In the words of one wholesaler, it's "the reason our firm can stay downtown."

For those wholesalers straddling the fence, the time for a decision is near. Competitors certainly are not sitting still. This year will set a record for relocations, judging by the number of announcements of new house openings. And we suspect that the drive-through idea is more than just a gleam in many a downtown wholesaler's eye.

George Jannsen Muller

EDITOR

ELECTRICAL WHOLESALING
NOVEMBER · 1956

Something Different . . .

Selling Supplies For a Dam Site

By Robert S. Bush

Salesman Dick Robinson has found that unusual markets are not too hard to sell, and can be very profitable at the same time. One sale to a firm constructing a lock at a dam site has led to more sales amounting to about $40,000 worth of electrical supplies. And the job is not yet completed.

AN AERIAL VIEW shows the $11 million lock project of the Keokuk Dam under construction. Robinson made big sale here.

A LITTLE persistence with an unusual customer has helped B. L. Robinson's Dick Robinson of Burlington, Iowa, sell a "dam site" more supplies than he expected.

Robinson got in on the ground floor in making an initial sale of electrical supplies for a lock project at the Keokuk Dam 45 miles south of Burlington.

• **Branches Out**—The salesman normally sells to industrials and utilities. When the U.S. Corps of Engineers announced in 1954 that a new lock would be constructed, he saw an opportunity to supply the electrical equipment.

"It was something new to me," Robinson says, "but I wanted to take a chance and see if I could sell the construction company officials on placing their electrical purchases with us. They were all strangers to me, but meeting new prospective accounts is part of the job of a salesman."

When the construction company moved into the area, Robinson immediately asked to see the purchasing agent. He was told that no supplies would be purchased immediately, but that he could have a copy of the Corps of Engineers specifications to study.

After looking over the specifications, Robinson again returned to see the purchasing agent in an attempt to sell supplies for temporary installations. He discovered that the company needed wiring and lighting at the site, in addition to standard stock items. Bids, however, would be asked for these materials.

• **Suggestion Approved** — After returning several more times to see the purchasing agent, Robinson submitted his bid. Within a short time, it was accepted. The salesman credits his persistent attitude and services he offered to much of his success in making initial sales to the project.

For example, the construction officials were interested in smaller-wattage floodlights than Robinson had recommended. To show them how more efficiency could be obtained, he wired a 1,500-watt fixture and demonstrated it at the site for them. This convinced officials. They not only accepted Robinson's recommendation, but purchased 100 more lamps than they had originally specified.

• **Orders Continue**—Since that first sale when Robinson got in on the ground floor, he has had no trouble in getting orders from the firm.

"Selling for a project such as this lock job really isn't any different than making a sale in any other market," Robinson comments. "Service, of course, is our biggest selling factor. However, in this case, persistence was a big help. I refused to take a negative reply as a final answer."

EMERGENCY DELIVERIES are part of Robinson's service at project. Although the construction site is 45 miles from Burlington, the salesman makes the trip as often as he thinks necessary.

KEEPING in touch with officials at project is stressed by Robinson. In this way, he knows when to make emergency deliveries, and keeps informed of the work progress.

In one phase of the construction, Robinson has supplied 90 per cent of the electrical equipment used in the project. Some of the equipment includes rigid conduit, fiber duct, switches, cable and lighting.

The entire project will cost about $11 million. To date, Robinson has sold about $40,000 worth of electrical supplies. And orders are still coming in.

The entire project is scheduled to be completed next March, and will include a 1,200-ft-long lock replacing one 330-ft long. Walls of the new lock are 50 feet high.

• **Selling Aids**—"In first attempting to make this sale, I learned that company officials will buy from a salesman if they like him. In this case, as in all others, I do everything to preserve the faith they have in me. Everything is on a good-will basis.

"No service is too small. Persistence is necessary. And honesty is essential."

Brings you up-to-date on what you can sell to . . .

The Food-Canning Industry

- Consumer demand has given frozen food production a big push since the end of WWII. Canned food volume is holding steady.
- Plants tend to be small, rural in location. Best market is for motors and controls—particularly for refrigeration equipment.
- Most buying is local, through p.a., manager or plant superintendent. Most electrical work is contracted out by canneries.

Broader industry with broader markets

SINCE 1940, the sales of frozen foods have jumped five times. Many in the food-canning and preserving industry have felt that this growth, which seems destined to continue, would stall the "canning" end of the business. And it has—but at a very high level: over 600 million cases of canned foods were produced during the record-breaking year of 1955.

The term "canning" originally meant the sterilization of food by heat and its preservation in air-tight containers. Now it includes not only cans but glass and frozen food containers; the processes are basically the same. New products appear continually. The American consumer is inclined toward ready-to-eat foods—and the industry looks forward to the day when entire meals will be delivered from local processors direct to the home, ready to be heated and eaten. Some basic meals are already available to consumers.

Food canning processes follow a definite pattern, with details (and specialized equipment) varying only for specific foods. Fruit or vegetables are first cleaned, sorted and graded, and then blanched (to shrink for proper fill of container, expel gases and set original color). After air is exhausted from the can, it is sealed, sterilized and cooled before labeling and packing. Refrigeration replaces the canning steps for frozen foods; otherwise, the process is the same.

The canning industry is widely distributed, with plants in 47 of the 48 states. It tends to be agricultural rather than urban, as the industry has stayed close to its source of supply. Census figures show that there are upwards of 3,550 plants, many of them small and/or specialized; about one-third of the total do 83 per cent of the sales volume.

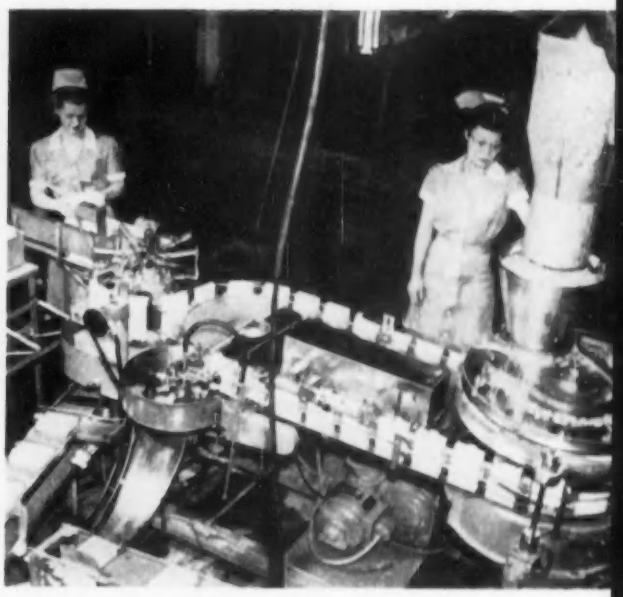
Motors and controls are canning needs

THE FOOD-CANNING industry is an average market for the electrical wholesalers' salesman. Plants tend to be small and in rural locations, and the specialized machinery usually is factory-equipped with motors and controls. (The machinery is so specialized, in fact, that different units are needed for nearly every type of fruit or vegetable). Freezing plants tend to be better markets than canneries per se.

The big need is for motors to operate the food processing machinery. In canneries, there are a number of motors in the ½ to 15-hp range. The motors to run refrigeration equipment in freezing plants tend to run larger. Control equipment on the production lines may be quite complex, depending on the extent of automation in the process.

The other main category for electrical equipment is in food-handling—from conveyors and lift trucks to palletizers. There's more and more mechanization.

The purchasing agent, the plant manager and the plant superintendent or engineer all have a say in electrical buying. The main exception is on major outlays when the plants are controlled from a central office. Most electrical work, including motor repair, is contracted out.



Food-Canners: More automation for bigger markets —Food Engineering

From fractional motors to detecting devices

APART FROM refrigeration equipment, electrical requirements for canneries and freezing plants are the same—and hinge heavily on motors and controls.

Most motors for running food canning machinery are in the ½ to 5-hp range, with some ratings up to 10 or 15-hp. They run everything from trimmers to graders to sealing machines, plus the continuous conveyors and other material handling equipment that link the processing machines.

Water is heavily used throughout canneries. Motors run the washers and power the pumps that provide sprays for washing, steam for sterilization, and water for cooling.

The number and kind of controls depends on the extent of automation—which is spreading in this as in other industries. For example, automatic sealing machines, able to handle from 150 to 500 cans a minute, are often equipped with cutouts and interlocks to assure correct sequencing. Detecting devices are able to remove cans with defective seals or insufficient fill.

Refrigeration adds new market dimension

FREEZING PLANTS use much of the same electrical equipment as do canneries. Added to this market, giving it a new dimension, is refrigeration.

Where freezing is involved, it is usually done by the use of brine coils hung from the ceiling, suspended on the wall or enclosed in a tunnel or tank through which the food is passed. There is little use of electrical refrigerant equipment in today's freezing plants.

Motors are used to drive compressors, pumps, motor control equipment and thermostatic controls. They may run from high integral hp units (100 or 200-hp) down to fractional hp sizes.

Refrigerated areas—like canneries generally—require watertight, vaportight and special protected enclosures for switches, receptacles and lighting units. Special low-temperature fluorescent lighting equipment is also logical for sale for use in freezing areas.

Add better lighting and sound systems

NORMAL industrial supplies—wire and cable, lamps, control replacements and parts, etc.—can be sold to canneries and freezing plants. The contractor as well as plant personnel will have a say on these purchases.

There's a need in food-processing plants for improved lighting. Good, overall fluorescent illumination can be sold in many plants—and with the growth of automation, there's a demand for better lighting over instrument boards.

These plants are also possible purchasers of specialty systems, alarms (especially for freezer compartments), intercom systems and sound and music reproduction systems.

NEXT MONTH: The Machinery-Making Market

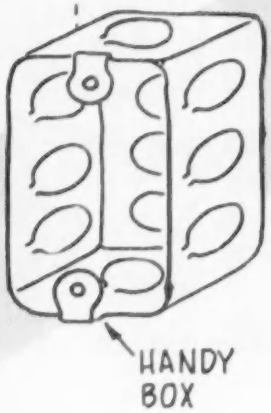
POLARIZED RECEPTACLES

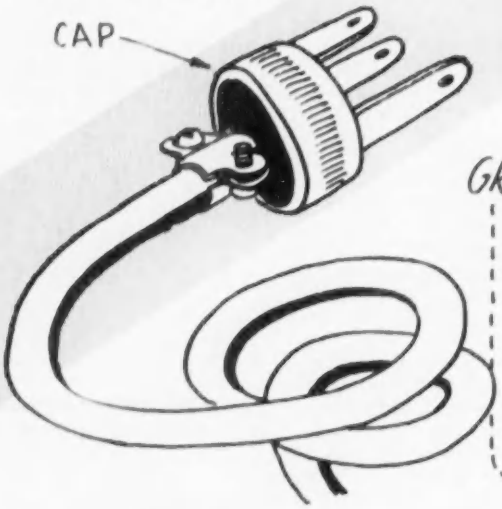
Used to prevent portable equipment from being plugged into systems of the wrong voltage, phase or frequency, and to maintain continuity of the grounded conductor.

A specific cap designed for each of these receptacles can be inserted in only one way. However, a conventional 2-pole cap would fit either without regard for polarity.

These are truly polarized receptacles, since only matching caps can be used. Conventional 2-pole caps cannot be used.

Slots marked "W" are plated white and are connected to the grounded circuit conductor. Slot marked "G" is for grounding the equipment.



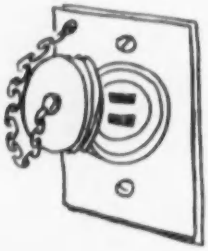


GROUNDING RECEPTACLES

Used to provide an equipment grounding connection and also to perform a polarity function when used with 3-pole caps.

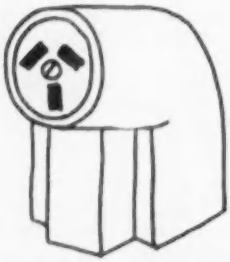
250 VOLTS TANDEM SLOTS

125 VOLTS PARALLEL SLOTS



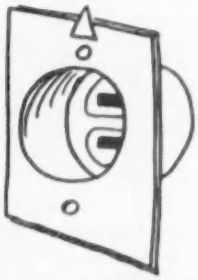
WEATHERPROOF RECEPTACLE

For outdoor use or indoors where excessive moisture is present.



RANGE OUTLET

Heavy-duty receptacle made especially for electric ranges also finds use in industrial installations.



CLOCK HANGER RECEPTACLE

Recessed space for cord storage allows clock to hang flat.

Pinpoints the Information You Need on . . . .

Wiring Devices—I

By W. J. Novak and J. F. McPartland

THE TERM "wiring devices" is commonly used to describe the very wide range of types and sizes of convenience receptacles, cord plugs, wiring switches for control of branch circuits and individual lamps or appliances, outlet boxes, utility boxes, switch boxes and lamp sockets and holders. These small devices are used on all types of branch circuits to provide both permanent and separable connections for utilizing available power, to protect the circuit conductors, to provide control and to afford maximum protection to the user of the available power.

Receptacles

Convenience or plug receptacles are made in many types and sizes to provide cord connection of lighting units, motor operated devices and other appliances to branch circuits. Receptacles afford ready compliance with National Electrical Code requirements on ratings and applications of separable connections.

A typical convenience receptacle consists of two or more stationary contacts mounted in a small insulating enclosure, with slots to provide entry of blades on attachment plugs to make contact with the circuit. **A typical attachment plug or cap** consists of two or more projecting blades set in a small insulating base, with provision for connecting the plug to a cord.

Receptacles are generally classified according to the number and arrangement of the contact slots and according to the type of mounting. Receptacles are made with the following slot constructions: two slots, for parallel blades; two slots, for tandem blades; two slots, for polarized blades; and four slots, for four blades. According to mounting, there are flush-mounting receptacles, surface-mounting receptacles and receptacles for use in special enclosures. Flush-mounting receptacles are made in three lines: a standard line, an interchangeable line and a combination line.

The standard line of receptacles is made larger and more ruggedly than the other two lines, and is used for relatively heavy duty applications. These receptacles are made with supporting straps and two sets of mounting screws. They are available in single and duplex types, with two, three and four poles, up to 20 amps, 250 volts. Regular two-pole units with parallel slots will accommodate only parallel blades. Units with "T" slots will take parallel or tandem blades.

Polarized receptacles are used with matching plugs to connect appliances to specific supply conductors, such as three-wire, single-phase or four-wire, three-phase or dc—where polarization of contacts is necessary to prevent improper or unsafe connection. These are made up to 60-amps, 250 volts.

Grounding type receptacles used for general purpose convenience outlets have two current carrying contacts and one grounding contact. The grounding contact is electrically connected to the yoke and also to a terminal on the side of the unit. A grounding conductor used to provide an equipment ground in non-metallic raceway systems is connected to the grounding terminal on such receptacles. In metallic raceway systems, equipment grounding is made through the metallic raceway and enclosures. In such cases, the yoke is connected to the metallic system by the mounting screws, providing the necessary ground for the grounding contact. These receptacles readily accommodate standard two-pole, parallel-blade plugs.

Another commonly used type of receptacle is the **twist-type.** In these units, the plug is attached by a pushing and turning action which locks the plug in the connected position. Receptacles of the twist-lock type take matching twist-lock plugs. Receptacles of the "twist-tite" type take standard parallel bladed caps. Twist type receptacles are made in a variety of single and duplex models for two, three and four blades.

Although household electric appliances are generally connected to their supply circuits by the use of the above described types of receptacles, the electric range is commonly connected by a special range receptacle and connector. Such units are made in flush and surface types.

The interchangeable line of receptacles consists of much more compact units, smaller in size and rating than the standard line. As many as three such interchangeable receptacle units may be grouped in one gang space in an outlet box. The interchangeable devices are not suited to heavy-duty applications. Only two-pole receptacles are made in this type, rated at 15-amps for 125 volts, 10-amps at 250 volts. The interchangeable line gets its name from the fact that different combinations of interchangeable size switches, receptacles and pilot lights, up to three units, may be assembled on a single supporting strap yoke and mounted in a single gang space.

Flush type receptacles are made in many more specific types than those described here. All flush receptacles are designed for mounting inside standard sectionalized switch boxes, outlet boxes or conduit fittings. The receptacle in the box is then covered with an outlet box cover, a conduit fitting cover or a standard flush plate. There are a variety of ways in which receptacles may be mounted in boxes.

The combination line of receptacles is very much like the interchangeable line and finds the same light-duty applications. Combination devices consist of various combinations of three units—receptacles, switches, and/or pilot lights—mounted in one molded composition body. A combination device fits in a single gang box.

Surface mounting receptacles are made in units of one, two and three receptacles—for ordinary two-pole plugs, for various light and heavy-duty polarized, three- and four-wire plugs.

Heavy-duty receptacles mounted as part of special conduit fittings are used for many industrial plug-connection applications requiring high current at higher utilization voltages. Typical of such receptacles are watertight, weatherproof and hazardous-location units—with their covers. Such units are made in wide ranges of sizes for all types of residential, commercial and industrial applications.

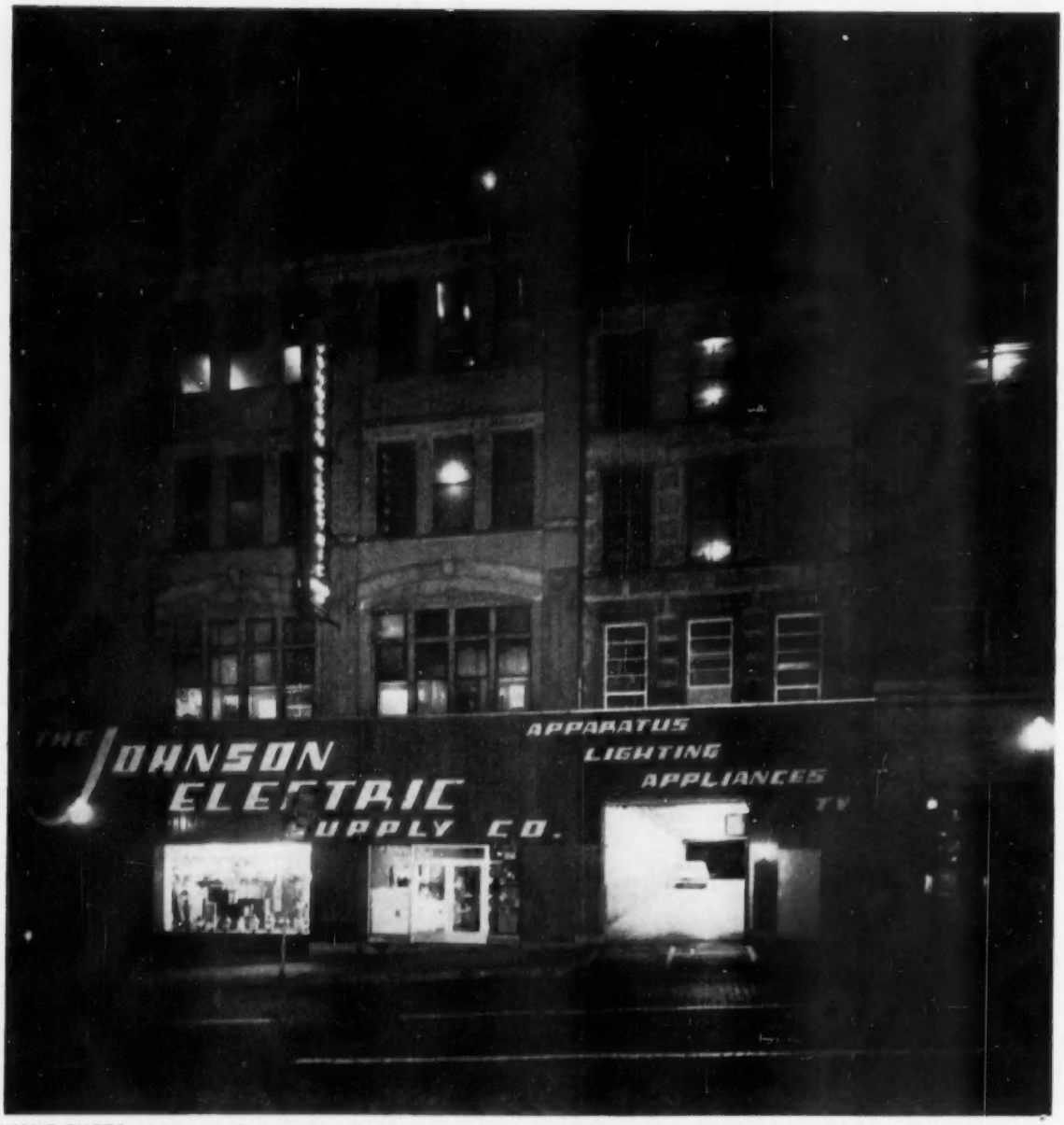
Special receptacles with recessed fronts, designed for flush mounting, are made for attaching cords from electric clocks and fans, with provision for supporting the clock or fan on the wall surface directly over the receptacle units.

Next Month: Wiring Devices—II

▲ OLD.....NEW ▼

'We Are Staying

". . . because it makes sense to stay in the center of things — and because we've got a drive-in tunnel," says C. W. Johnson, Jr. of Cincinnati's Johnson Electric Supply Co.



NIGHT PHOTO of Johnson Electric's new facade shows drive-in pick-up facilities that have enabled firm to stay downtown. Facilities—which contrast with old facade (left, above)—were plugged in mailing piece sent to all customers.

Downtown'

"HERE'S the reason our firm can stay downtown—it's our new drive-in, pick-up system!"

That dramatic piece of ad copy (used on a customer mailer, with photo at left) tells its own story for Cincinnati's Johnson Electric Supply Co. It's President Claude W. (Bud) Johnson's answer to the wholesale wholesaler moves, in all parts of the country, to new outlying locations.

Johnson Electric's "tunnel," in operation a year now, is paying off. "Business is up even more than we expected," Bud Johnson says. "We've had to add two people to our inside sales force to handle the pick-up volume. The tunnel is so busy, in fact, that often our own salesmen can't park long enough to load items for delivery."

• **Different Slant**—The decision to build the tunnel and stay downtown wasn't a hasty one. Johnson admits that the easy thing was to follow the trail to the suburbs.

"I guess we just see the other side of the coin," he comments. "There obviously isn't any virtue in just being downtown; it's simply that this is the communications and transportation center. We get shipments in and out easier. As more expressways are built, they'll send customers our way and they'll make it easier for us to cover all our trading area—city and country. What's more, we're just two blocks from the bridges to the Kentucky side of the Ohio river.

"We're also attracted by the plans, now well underway, to redevelop downtown Cincinnati," he adds. "While our taxes may go up, we feel this area is going places—and we think we'll go with it."

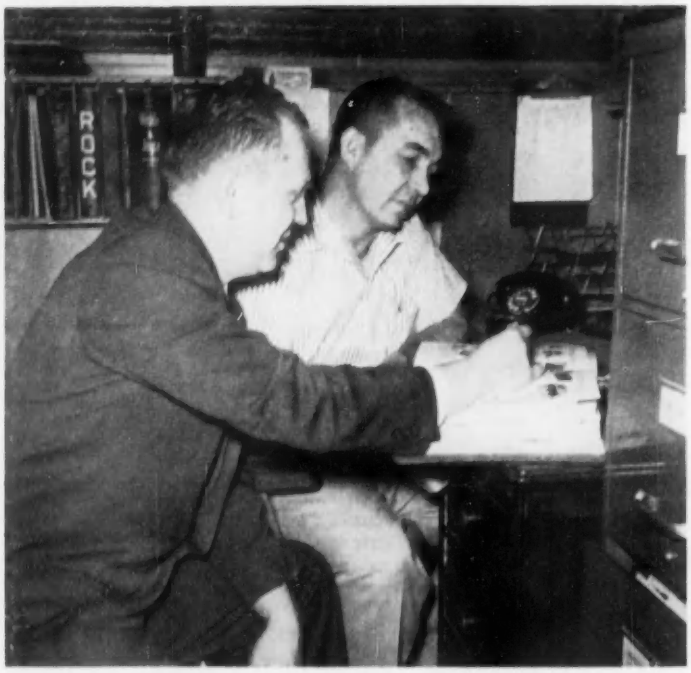
• **Practical Side**—The service tunnel made this thinking practical. Johnson Electric bought the four-story building next door two years ago. The basement—an old wine cellar—was turned into an appliance storeroom, and the upper floors were hooked onto the main building. Then the ground floor was converted into the drive-in. It has two lanes (one mostly for temporary stopping) and electrically-operated overhead doors. The idea is to keep both lanes open if possible. Customers load up and move on out.

Says Bud Johnson: "It's a drive-in, not a 'drive-through.' It's a quick-in and quick-out business—and we're getting plenty of that. The tunnel is doing a job for us."

IN "Phone in rush order . . . Toot three times"

PICK-UP "Stop at the window for order . . ."

OUT ". . . Proceed on out the exit at the front"



Sale starts with first talk to builder's purchasing agent . . .

and results in sale of supplies

'I Inherited a Crack Salesman's

IT WASN'T easy to step into the shoes of a top-notch salesman whose big account with a builder was profitable to the company. I'm talking about Warren Yost, who is now a manufacturer's representative in Florida.

Warren started the ball rolling a few years ago when he broke into the builders' market in a big way. At that time, Strauss Brothers—one of Lincoln's large builders—began construction on a 250-home development in the city. This is a firm which does practically no sub-contracting. All of the electricians are hired by the firm, and for a distributor's salesman it is similar to selling to industrials with electrical staffs.

Through his persistence, personality and service, Warren Yost was able to convince the purchasing agent that the Korsmeyer Company could take care of all their electrical needs. And his continued service proved satisfactory to the builder.

Strauss not only builds homes, but sells them. The firm constructs its own streets and installs street lighting. Even swimming pools are built only for use by residents of the developments. So it's easy to see the potential of the amount of electrical equipment that can be sold.

• **Takes Over**—Anyway, after spending eight years with Korsmeyer at various inside jobs, I suddenly found myself taking over selling outside where Warren had left off.

That was about four months ago. And I'm still getting my feet wet. I'm also learning more each day about what it takes to sell to the builder, and believe me, you really have to keep on the ball to continue doing business with him—especially following a veteran salesman.

Like everyone else, builders are conscious of price. They demand fair prices, and if they don't think they are getting a fair deal, they won't hesitate to take their business elsewhere.

With Strauss, as with all our customers, we give competitive prices and keep our prices in line for them.

Builders are smart people. If you try to bluff your way into a sale, it will be the last time you will do it. I visit the purchasing agent at Strauss Bros. twice a week mainly to find out if he is short on materials and to inform him of any price changes. Price is important to him, and he appreciates knowing about changes whether he makes a purchase or not.

Normally, we make large deliveries once a month to this builder. And we know just about what to send him each time. The supplies usually are enough for from 10 to 20 houses.

• **Estimate Needs**—Whenever a project is being planned, I get together with the builder's purchasing agent to draw up a roughing-in schedule. What we do is to estimate the amount of electrical materials that will be needed in the entire project.

Because the size for all houses in a development is uniform, we multiply the amount of supplies needed for one unit by the number of houses to be built. Both the builder and I then know the approximate cost of the electrical equipment for the project.

By placing orders for a number of units each month, the builder has an

for home building project. Some of the houses for which Holmstedt sold equipment are shown here.

Top Account'

By Dan Holmstedt

Salesman, Korsmeyer Co., Lincoln, Neb.

advantage. That is price protection. After he has placed his month's order, he will not be affected, in most cases, by price changes which might occur before the delivery is made. And he sure is happy with that.

All of our supplies are delivered to the builder. As the electricians need equipment, he supplies them from his stock.

• **Getting the Feel**—Working with the purchasing agent is only part of my job in selling the builder. To really know how our supplies are being used and appreciated, I regularly visit construction sites and talk with the electricians. I never have found one who will not stop and talk with me for a moment—no matter how busy he might be. You'd be surprised how much you learn that way.

The builder often asks me to take small items directly to the electrician. Also, the electrician sometimes wants additional wire or replacement items, which I usually deliver to him personally.

I have found that with a builder, there is nothing like good will to keep him on your side and doing business with you. A builder can be very demanding at times about deliveries, which he wants on time and filled correctly. That is why I have found it important to stress service in this market, no matter how small it might be.

I continually try to sell to the small builder, again where there is no electrical contractor involved, and have found that most object to buying a large quantity of electrical supplies at first. This sometimes can be hard to fight. Many try to get along with as few supplies as possible, and won't give you too much time to make a sale.

• **Sincerity Vital**—However, most respect sincerity. Sometimes, I don't even talk about selling when I visit them. After I get to know them, I begin stressing the importance of an adequately wired house, the attractiveness of a house with a quantity and quality of fixtures, the extra profit they can make by the increased value of the house.

All are receptive, and when they realize I am sincere in my efforts to assist them, they listen. In the long run, I find I never waste my time. It might take a little while to get them on my side, but patience is important.

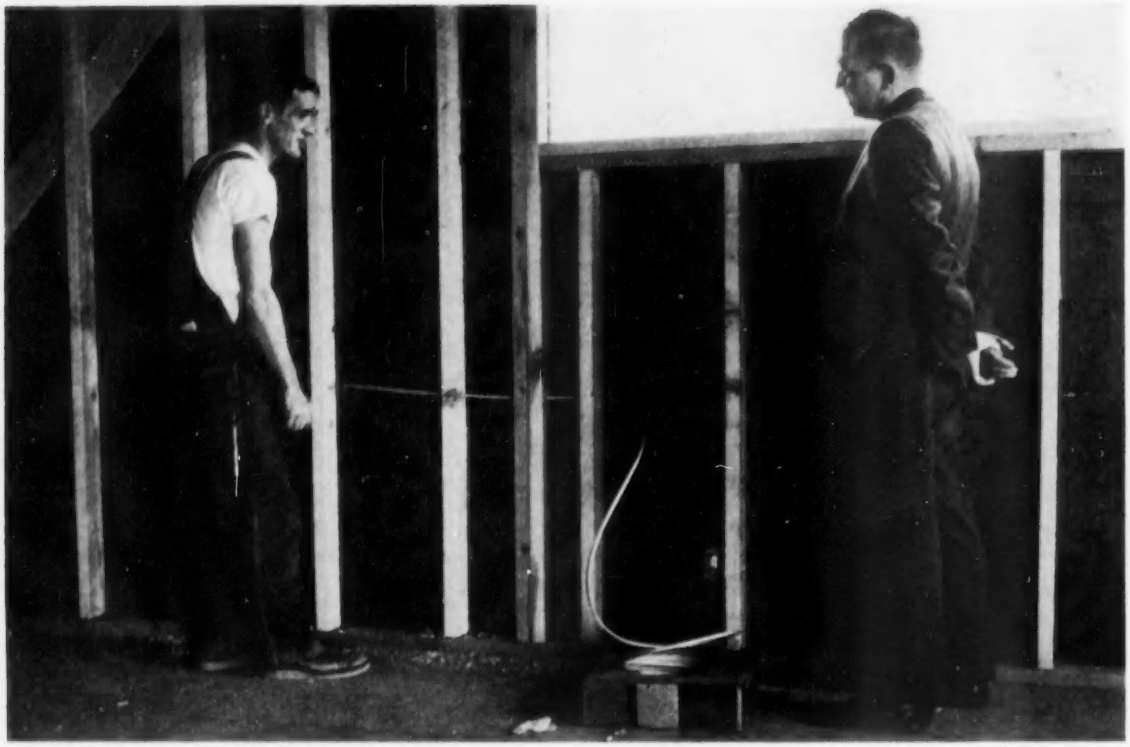
We have been selling to Strauss Bros. for a long time, but our big opportunity came when the builder started his first large development in 1953. At that time, there were 250 homes in the project. Last year, another 300 homes were constructed, and more are underway now.

For all of these projects, we supply about 99 per cent of the wiring needs. Approximately three per cent of the total cost of a house goes for electrical equipment. Homes range in price from $11,500 to $17,500.

• **"If Shoe Fits . . ."**—This is a big project for me, and I'm going to try every idea I can think of to increase my sales. As I say, I'm still getting my feet wet, but builders usually are fair and will listen to any idea I might have. It has been a profitable market in the past, and I intend to keep it that way even though those shoes are still a little loose.

For more on how Holmstedt sells builders, turn page.

Here's How Holmstedt Follows up a Sale With the Builder



VISITING electrician at building site is part of regular duty of salesman Holmstedt. Here, he watches as Dean Burns begins wiring house in latest development in Lincoln. Holmstedt says electricians give him many sales ideas.

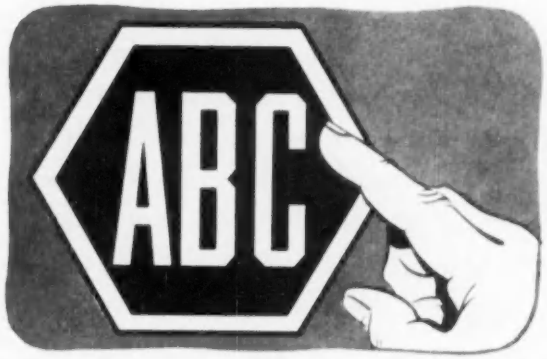
WIRING at location where street lighting post will be erected is being inspected by Korsmeyer's salesman. In addition to supplying these needs, Holmstedt says that he sells about 99 per cent of supplies to the development builder.

HELPING electrician explain the progress of work to the city electrical inspector is routine with Holmstedt. He visits project site about once a week to see how work is progressing. He says he feels he has a personal interest in the development.

The Reader Is Boss

or... How ABC Helps You Run The Magazine Business

Readers who pay for magazines are always ripe for new ideas, new information, new trends and new technological developments. By giving or withholding their subscription money, reader-customers vote for or against editors and publishers. Counting these "votes" is the important job of the *Audit Bureau of Circulations* — the watchdog of the publishing industry.



YOU CAN TELL which magazines have fully-audited paid circulation when you see the ABC symbol on their cover or contents page. This is the symbol that stands for the Audit Bureau of Circulations, a cooperative organization that sets standards of good business conduct for its publisher members.

ACCURATE FIGURES — ABOUT YOU are the heart of ABC's job. ABC does a candid, unbiased, certified audit of all subscription figures of member magazines — and of the subscribers' jobs, functions, and locations. These audits help editors to tailor the contents of their magazine to your specific job interests.

YOU'RE THE BOSS when you pay money for any magazine. Your vote of confidence and your renewals of subscriptions are dominant in the thinking of editors and publishers. Advertisers are vitally interested, too, and their support helps earn the dollars needed to do a stronger, more useful editorial job for you.

YOU, THE SUBSCRIBER, WIN when you buy ABC magazines, for this mark is your assurance that you are getting a publication tailored to your needs. McGraw-Hill has been a charter member of ABC and has supported its aims continuously for over 40 years. And ABC, in turn, is responsible in many respects for the high standard of business magazine publishing today.

McGRAW-HILL MAGAZINES

McGRAW-HILL PUBLISHING COMPANY, INC.

330 WEST 42nd STREET, NEW YORK 36, N. Y.

We asked . . .

'Are You In the OEM Business?'

They replied . . .

'It's 40% of Our Volume!'

. . . and then they went on to explain why they're selling the original equipment manufacturers, how they're organized to do it, what they sell (see list on opposite page), what problems they face, what they do when manufacturers move in. Who are "they?" "They" are the president, the sales manager and the OEM sales specialist of a good-sized, reputable electrical wholesaling firm whose name we do not care to disclose. Here's a composite of their views on what it takes to sell the OEMs:

You can't go to the grocery store and buy beans with percentage; it takes dollars—the kind that OEM business brings in.

WE LIKE selling to original equipment manufacturers for a number of reasons. Most important is the kind of money that we make.

Even though having an engineer as our OEM specialist may seem relatively costly, our other expenses are low. Only 5 per cent of our inventory is OEM stock. Most of the business is direct shipment—and our profit averages about 5 per cent—sometimes larger if the product is a more complicated device.

The obvious rebuttal to that is "Why are you in the business if you don't stock?" Here's our answer. We're not johnny-come-lately. We've been selling OEM material to manufacturers in this area for 28 years—in one way or another.

We have a full-time electrical engineer who specializes in servicing our nine-or-so big accounts within a radius of 30 miles. He's within minutes of any call we may get. Obviously that's a shorter time than it would take a manufacturer's man to be on the job, answer detailed engineering questions and give the customer prompt service—and it's less expensive.

Another thing; our specialist and our inside personnel who back him are familiar with many products. The manufacturer's man may represent only one product division of his company.

The customer doesn't want to be told he has to wait for five men to call to answer his problem. He wants it from one man who calls regularly and has a "right-on-the-plant-floor" interest in the OEM's operation. And that one man is our specialist.

We get this business because we deserve it. We're organized to do the most economic and competent job of properly serving original equipment manufacturers. In return we take in dollars that can be put to work.

OEM business is like a 2-inch pipeline. You've got to keep it full of volume at all times to get a steady stream of dollars.

THE DOLLARS we make on our OEM sales are a return on our investment. Very little is charged off to them because they represent something most wholesalers can't accumulate these days—built-up cash reserves.

So we're interested in always keeping our OEM pipeline full. We don't particularly care where the volume comes from providing it's from reputable concerns. And sometimes we're not so concerned as to how much percentage profit there is on a given item at a given time.

The main idea is the more volume—the more dollars; the more dollars—the more fluid capital. We—like other electrical distributors—are already going the way of trying to fight the battle of historic margins. We're beginning to realize now how important that pipeline is.

As our margin of profit has had a tendency to shrink in our normal wholesale operation, we have been able to boost the number of dollars taken in with our very active and complete program of selling original equipment. What we make on our apparatus and supply business pays all the lights, taxes and wages.

What's left over is then considerably augmented by the pipeline. And it's a comforting feeling to be able to pick up those badly needed extra dollars. But you've got to keep separate figures. The books on the OEM business are the pressure meters on the pipeline that tell us the up-to-the-minute story on what's happening.

Here's what X Electric Supply sells to Original Equipment Manufacturers:

Flexible Conduit: metallic and metallic with plastic covering
Armored "ABC" Cable (BX)
Non-Metallic Sheathed Cables
Conduit Bodies and Covers including explosion-proof fittings
Armored Conductor Fittings: connectors, specialized couplings for flexible metallic conduit and armored conductor
Lead-Covered Cables
Special Purpose Cables (all kinds)
Power Supply Cables (with 4 or 5 up to 48 conductors—color-coded)
Magnet Wire (for transformers)
Tape: (with only one side sticky for use as harnesses during product's assembly)
Toggle and Momentary Control Switches
Cutouts and Fuse Blocks; special fuse holders and terminal blocks
Horns (industrial type)
Alarm, Call System
Special Lamps (small sizes)
Fractional Horsepower Motors
Transformers (special and small types)
Selenium Rectifiers
Electronic Tubes: accessories and control

The problems? Time, price and competition—and they force you to operate efficiently in apparatus and supply as well as OEM selling.

ANY KIND of selling has its headaches and this business is no exception.

For all salesmen, time is a problem. For our specialist, it's a very acute factor. He spends roughly half his time outside—half, inside. He's often said that if he could physically spend 16 hours a day working, he could find some OEM business that would bring in profitable dollars constantly.

Our inside organization does a tremendous job of back-stopping his sales efforts. Its a tough job for him but he has yet to hear any serious complaints. He calls on his accounts regularly and is always available for emergencies.

As far as price goes, you've got to stay in line. You possibly may be a few cents higher—because you're local—but the quickest way to get out of the OEM business is to be a real hog.

Then too, competition is an influence on your standard of service as well as your prices. It may not seem so to most salesmen, but purchasing agents and company policies still have a human element.

So, we find that a customer will give us so many hundreds of thousands of dollars worth of business a year—and don't think they don't know how much we are getting. Then, they'll say, "Look—ABC Supply . . . friendly . . . in the area over the same period of time . . . with equally fine selling program and prices is entitled to some of the business." This attitude, together with the fact that they never put all their eggs in one basket means they almost always have more than one source of supply.

All these factors—time, price, competition—mean that you've got to operate at peak efficiency all the time. All these customers also purchase apparatus and supplies. So that means we wear two hats. And the brains under them must be running like a Swiss movement. Fall down on service in either business and there goes the whole shebang. The OEM business has kept us on our toes across the board and we're grateful for the added benefit.

The phone's indispensable to pleasing the OEMs; bills may up your overhead but using it expedites service immeasurably.

ONE VITALLY important rule in successfully selling an OEM is that you expedite all orders to the satisfaction of the purchasing department.

This may involve getting on the phone for hours at a time, but it's got to be done. These customers must have the material on schedule and sometimes they'll come up with abrupt changes you have to be ready for.

Just this morning, one OEM's purchasing agent called. He not only wanted to speed up delivery on a shipment but also wanted the destination changed to Washington, D. C., instead of here. It took a lot of phone calls to Chicago and Washington, but we finally got the shipment re-routed air freight. In this business the customer really is "always right."

The telephone not only helps maintain contact with our customers, but also aids us in maintaining a smooth working arrangement with our manufacturer-suppliers. We've got to keep on the ball with them, too. We operate on the principle that we are an efficient, economical arm of the manufacturer's organization. We provide him with an alert, aggressive selling set-up that he couldn't feasibly afford to build here himself. We profit by this thinking.

In return, he is entitled to as close a liaison with us as he would have with his own factory representative or agent. The phone is the key to this liaison. Occasionally our specialist requires the aid of a factory man. The phone gets him in a hurry. Our organization, of course, relies heavily on the phone in supporting the specialist.

When you're in this business, you just can't do much about the phone bills. The phone has too many benefits that can't be measured in terms of overhead alone.

For more on selling the OEMs, turn page.

If a manufacturer latches on to OEM business we've carefully built over the years—we take a dim view on buying from him in the future.

THE BULK of our selling to original equipment manufacturers has been built up very carefully by the specialist for almost 25 years. We don't like losing them, if we can help it.

Some accounts take cultivation via regular calls for two or three years before we hit paydirt. It's expensive and time consuming. So, when a manufacturer—with no set OEM policy regarding distributors—decides an account is juicy enough to sell direct and cuts us out—we have a simple but effective remedy.

We cut our buying from him to as little as possible, and that goes for the materials we buy for the apparatus and supplies business, too.

There was one manufacturer that lost probably $50,000 worth of business a year from us. Why? He cut us out of an OEM account. We immediately took steps to find another manufacturer of the same products who would cooperate with us. Since we found him, we've slowly built up a nice business for him in this territory. What's more, we're selling that same OEM again on our new line.

Many manufacturers cooperate completely with us. They feel—and we agree—that we can give them the best OEM representation and selling coverage available in this area.

They also know that manufacturers who are customers for original equipment are also customers for apparatus and supplies, that they are called on by our regular full-line salesmen as well as the specialist.

Incidentally, our specialist helps our regular salesmen with their engineering problems and they often give him leads to potential OEM accounts.

Some manufacturers don't think that we should be selling their products to OEMs. We don't agree. If we are expected to service OEM accounts on everyday requirements, we should not be bypassed when a large order is in the works.

We can handle OEM business as well, or better, than most manufacturers.

You can't draw the line on service or unproductive calls; customers who seem unprofitable today can be tomorrow's biggest customers.

YOUR REGULAR concepts of what's profitable or unprofitable business go out the window when you're selling to original equipment manufacturers.

With your straight apparatus and supplies selling you may have a rule of thumb, the "feeling" on an account's potential worth. Or, you may use strict cost accounting procedures and come up with a formula you can pass along to your salesmen. Something like; so many calls plus so much sales pitch equals so much sales volume.

Then you tell your salesmen "Look, if you don't reach that figure or above each month—stop calling on the account," or "Don't waste more than one call each month, etc."

That's fine for that business, but it doesn't go with OEMs. You may work on one for years before there's a sign of real buying—but then it's worth the work.

In the 25 years he's been selling, our specialist has grown up with these customers in terms of experience—the kind of knowhow you can't buy. He works straight.

If he can handle their problems, he will; if he can't and feels they'd do better working with the manufacturer, he tells them so. This doesn't often happen but it makes quite an impression. His rule of thumb is this: if we carry any product an OEM can use and there is any chance that he can sell them now or in the future—he'll keep trying—with no other reservations.

They say little business is fading in America today. Here's where it's growing to beat the band. Why? As OEM's grows, subcontractors grow.

THERE'S ANOTHER angle to this OEM business that's becoming more important every day. It's all tied up with why the electrical distributor should stay in the picture and why the manufacturer should be happy to have him in the picture.

Let's take our biggest OEM customer. As he grows in this business, it becomes necessary for him to take a much more careful look into how much of the material that goes into his product he should make himself.

In other words, this customer finds that he has grown tremendously. He discovers that it's more efficient and satisfactory to farm out some of the items he normally processed himself. Being hard-headed and realistic, he decides he should have sub-suppliers.

Now, we're in a key position on the basis of our past OEM activity with this customer. He asks us to help select his sub-suppliers and to work with them on the item they'll supply. The result: in this area, we not only have the big volume of business from the OEM, but now we are enjoying a great deal of business with about four or five other sub-suppliers who are turning out an item the OEM originally made himself. And all this because of our specialist and his active OEM selling program.

Who else can do this? Here is representation on the scene that can coordinate and handle these four or five sub-suppliers for the OEM.

In this way we handle a very important part of our service and it's becoming more important. As these OEMs become bigger and bigger, they're going to need more and more subcontractors—and we're supplying them with the materials for the OEM part they turn out, plus the electrical materials they use in their regular work.

Small business isn't fading in this area—it's booming and we're glad to help. We like this OEM business. We're in it to stay. If the electrical industry, as a whole, doubles in the next ten year, we assume our business will run a similar course.

If it does, we're ready to expand physical properties, personnel and so on to keep in step with the future. We note that many manufacturers are coming over to the distributor's side of this OEM controversy. Let's hope the trend continues. Whatever happens—it's too important for us to step out of.

You can't win a fight by backing away.

Buffalo Pushes AW in Home Week

PRESENTATION of certificate to builder Harold Genrich, all of whose homes meet AW standards, is made by R. H. Davison of Kelvinator, president of the AW Association of Western New York. A. M. Tischendorf, executive director, is at left. The Buffalo program began to roll last spring.

BUFFALO—Tying in with National Home Week in September, Buffalo's AW program reached the crest of the first in what is billed as a five-year certification and rewiring campaign.

The Buffalo Courier-Express, in a special section Sept. 9, carried a number of appliance advertisements with AW themes aimed at the Home Week audience. In addition, the paper carried a list of AW-certified homes with the names and addresses of their builders. This ad was sponsored by the Adequate Wiring Association of Western New York, the certifying and promotion bureau.

As of Oct. 1, certifications totalled 32, according to Andrew M. Tischendorf, executive director. He adds that perhaps as many more are in process but are as yet incomplete.

But to the Buffalo unit, certifications are no measure of the progress made since November 1955, when NAWB named it as the area certifying agency. The first months were spent on the organizational end, mostly on financing. Niagara Mohawk put up half the planned budget, and asked the rest of the industry to match it. Supplies wholesalers were asked for support on a size basis.

The group got under full steam in the spring. Here's how the campaign went:

- Full-page newspaper announcement to the public, builders and the trade, followed by smaller ads through the summer, using the AW theme and running on builders' pages. There were also a number of tie-in cooperative ads.
- Buffalo radio stations carried spot announcements offering the booklet, "Your Home's Electric Wiring System."
- Use of 23 billboards during one month to promote "Full Housepower with AW." This theme, plus that of Live Better Electrically, is used jointly with AW.
- Decals and easel literature dispensers were furnished to wholesalers and contractors, as was AW literature.

Three wholesalers are represented on the bureau's board of directors: Charles Schuster, Buffalo Electric Co., Inc.; Peter Quermback, Sr., Quermback Electric Co., and John A. Woolley, L. A. Woolley, Inc. Others on the 18-member board represent banks and lending agencies, appliance distributors, contractors, Illuminating Engineering Society, N. Y. Board of Fire Underwriters, American Institute of Architects, and the utility.

"Wholesalers are supporting the program very well," says Schuster. "Buffalo Electric is in it, even though we don't think we'll get much business from it for a while. Right now, it concentrates on the residential end, and we're mostly industrial. But it's going to pay off; there's a lot of commercial and industrial modernization now—and we're sure this program will lead to more."

Urge Local Tie-in With Electrical Week

DETROIT—Promotions on television and radio, aimed at attracting a large national audience, are only the first step in making National Electrical Week successful. Local promotions must carry this industry-wide promotion through, according to NEW chairman M. E. Skinner.

The need for local action—on top of the many manufacturer tie-ins which have been set nationally (EW—Oct. '56, p. 100)—was stressed by Skinner, vice president of Union Electric Co., before a meeting of the International Association of Electrical Leagues. The second annual NEW observance is scheduled for Feb. 10-16, 1957.

"We don't have a captive audience," Skinner added, "nor do we have a fool-proof way of attracting or holding our audience's attention during such a national event. . . . The week will be a success only if program and activities on the local level are vigorous and meaningful."

A planning kit for local use is now available. Provided by the national committee, it includes news releases, radio spots and display suggestions. Formation of local committees takes first priority. Distributors are urged to use displays and help customers set up displays (possibly with contests for the best one showing fans, housewares or lighting), to feature NEW in advertising, and to use the week as a kick-off for product showings.

Contractor Tie-in Aim of NAED Kit

NEW YORK—Encouragement of greater contractor identity locally is a prime aim of NAED's upcoming "all-program" tie-in plan for distributors, according to Arthur W. Hooper, executive director.

"Many distributors feel that the electrical contractor isn't closely associated with residential work in the consumer mind," Hooper explained. "A housewife, stirred by the industry's pleas for better wiring and electric living, will call the first or second contractor

Continued on page 110

There's More Than One Way To Build a Sale

1 One half of Crescent's lighting sales team, Don Schlader, builds up on alternate bid for prospect.

And Crescent Electric's lighting specialists—Bill Vahl and Don Schlader—are trying them all. Though some of their approaches to selling-up residential, commercial and industrial lighting are unusual, they've paid off in creative, profitable sales in four states.

2 Teammate, Lighting Manager Bill Vahl, gets fixture at airport, and prepares for delivery to Cuba City, Wis.

A CREATIVE approach to selling is probably a salesman's most profitable asset. And Crescent Electric Supply Co. of Dubuque, Iowa, doesn't believe in putting the brakes on that quality—especially when it concerns unusual selling ideas used by its two lighting specialists, Bill Vahl, manager, and Don Schlader.

All of their techniques are aimed at selling-up lighting, and in the six years the department has been in operation, the ideas have produced satisfactory results. What are their unusual techniques?

- On most jobs, they submit an alternate bid involving more and better equipment—and more profit if it is accepted.
- For demonstrations to prospective customers, they show three-dimensional slides in color and black and white of similar lighting jobs they've sold. (Vahl photographs installations with a stereoscope camera.)
- Both use a portable stand on which they can show any type of lighting fixture to a prospect at head height.
- For demonstrations of outdoor fixtures, they use a panel truck on top of which a pole and the fixture can be attached. The unit is assembled at the site where the prospective customer wishes to place an installation.
- As part of their free service, Vahl and Schlader prepare estimate sheets for a prospect, showing a complete list of materials involved in a particular job, and recommendations of various types of equipment.
- Both work closely with contractors and architects in giving them up-to-date information about quality and trends in lighting.

Crescent's lighting specialists don't use all their methods on each sale, but select and tailor them to the needs of each customer.

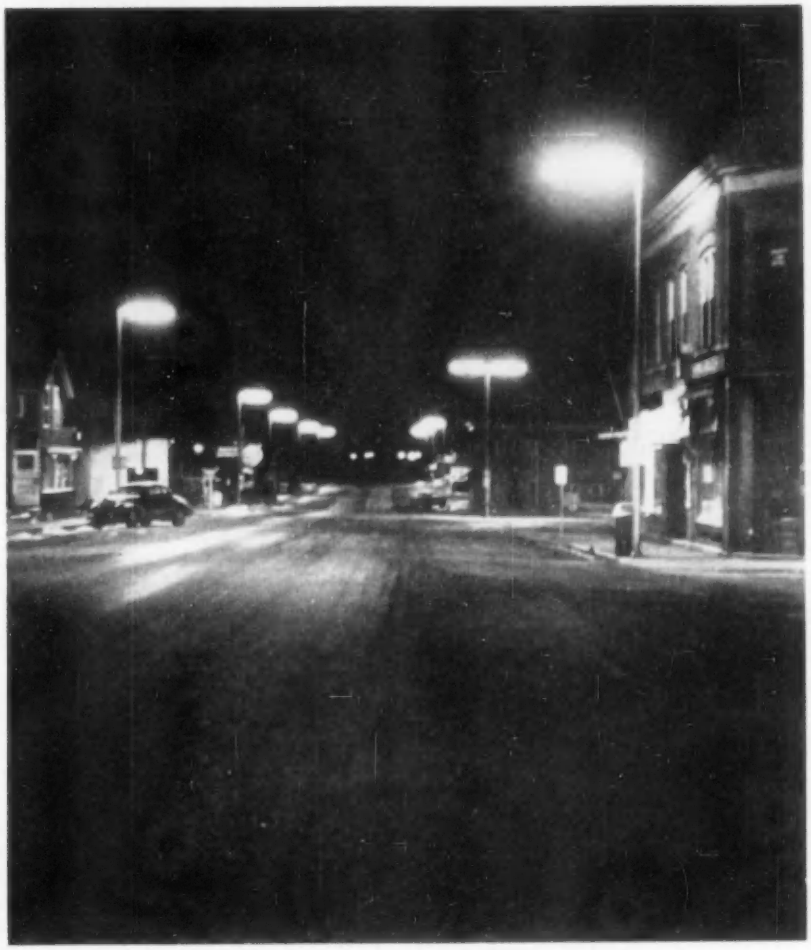
Take a recent street relighting job, for example, when the city council of Cuba City, Wis., asked for bids.

- **Submit Alternate**—The original appropriation for the job amounted to $4,500, with mercury lighting in the specifications. Vahl and Schlader submitted two bids through the contractor; one for $4,500 using mercury—the other for $7,500, employing fluorescents.

"It took us additional time to estimate the alternate bid," Schlader said, "and we weren't sure just how it would be accepted. But we looked at the situation this way: we had everything to gain and nothing to lose."

When the city council of Cuba City met to open bids for the street lighting project, Vahl and Schlader were present to explain in detail the price quotations and advantages of using fluorescent lighting.

"We believe this type of lighting will be the street lighting of the future," Vahl says, "and that is what we told members of the council. We explained that as far as we knew, no other lighting of this type was being used in



3 Net result, part of the sale of a $7,500 street lighting installation in Cuba City. Before "building" treatment, specifications called for only $4,500.

Wisconsin for street lighting, and that if they accepted our alternate proposal, Cuba City would be recognized as a progressive city."

At the end of the meeting, although bids were opened, council members decided none would be accepted until Crescent's proposal was considered carefully.

• **Demonstrate Lighting**—In following up their initial action, the lighting specialists decided to demonstrate fluorescent lighting to the city council and to the citizens of Cuba City.

First, they contacted the manufacturer for immediate shipment of a fixture. This consisted of a fixture for a six-foot, four-lamp unit of 455 wattage. The manufacturer responded immediately, and shipped it to Chicago by air express.

From there, a plane was chartered to fly the fixture to Dubuque, where it was picked up by Vahl. Both he and Schlader then drove to Cuba City, where they mounted the fixture on a pole attached to the top of their truck.

After the fixture was demonstrated to council members, the salesmen made arrangements to have the fixture installed temporarily in the city park to obtain comments from citizens of the community.

"I supervised the temporary installation," Vahl says, "and it was quite a job. The city engineer had two wooden poles we used for the mounting. We had some wood lag screws with which to mount the fixture. Although the engineer didn't think they would be sufficient, we used them."

Others who had submitted bids also made their installations around the park, too. But Crescent's display received the most favorable comment. Within two weeks, the alternate bid—for $7,500—was accepted.

• **A Curve Ball**—"The sale was a curve ball or an eight ball," Schlader says. "We were smart enough to outsmart our competitors. In this, as in other cases, we find that you have nothing to lose by trying to sell good lighting. It is a good seller now and in the future, and it is satisfying to the buyer.

"We convinced the mayor and city council that up-to-date lighting is good and that they should conform with the future. It made an interesting project that might happen once in a lifetime."

In addition to their sale of 21 units, the specialists also supplied all the underground wiring and 30-ft metal standards, all of which boosted to about twice as much the original requirement for bids.

• **A Thousand Words**—As an amateur photographer, Vahl often finds invaluable aid in taking pictures of completed installations, and later showing them to prospective customers.

"It's amazing how pictures can explain the advantages of good lighting much better than words," he explains. "Prospects like to see similar lighting installations before they make a decision. What better way is there to accomplish this than to show them slides or pictures conveniently at their offices?"

As an example, Vahl and Schlader attempted unsuccessfully for many months to get officials at an industrial plant to relight with up-to-date fluorescent fixtures. It was not until Vahl showed color slides of similar installations that the officials decided relighting would be more beneficial and attractive.

• **Demonstrator**—The portable stand on which the salesmen display fixtures is extremely helpful in selling-up lighting, too.

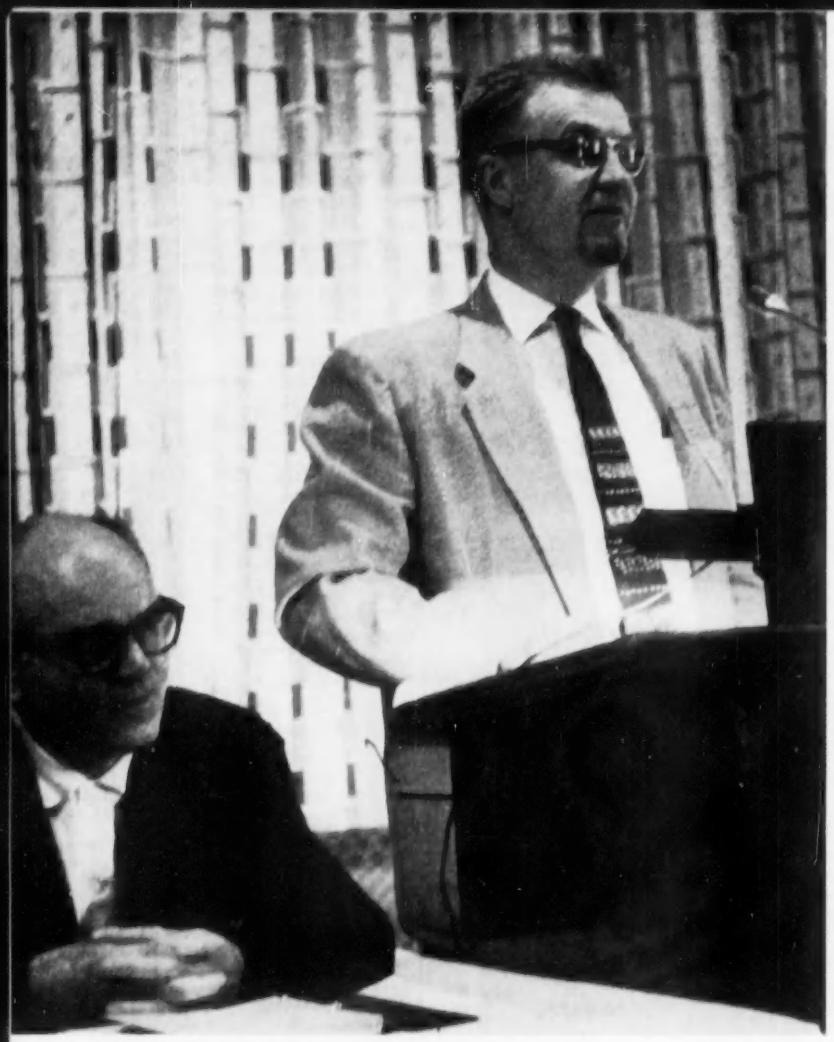
The stand can be folded conveniently for carrying. Vahl and Schlader have made use of it profitably in selling relighting for schools. When they submit their bid, they also attend the meeting of the school board to answer questions and to demonstrate their type of lighting which is displayed on the portable stand.

Although they occasionally use it to display fixtures to industrial customers, about 75 per cent of its use is on school jobs. With the stand, the salesmen can display four-foot lamps, and can assemble the kit to head height.

• **Complete Layout**—One of the largest services provided by Crescent's lighting department involves a complete layout of lighting equipment estimated by the specialists for the prospect. Usually, outside salesmen send in blueprints of a project for which Vahl and Schlader estimate the type and amount of lighting they think should be installed.

"We make alternate proposals for comparison," Schlader says. "After we draw the layouts and prepare the

Continued on page 120



KEYNOTING NAED WESTERN REGION CONVENTION was general meeting chairman E. C. Phillips (at mike), Coast Electric Co., San Diego. Preparing to deliver his talk, "Let's Talk Business—Western Style", is outgoing western region v. p. W. B. Meek (seated) of Wesco—Los Angeles.

NEW western region v. p. Sam W. Mesick, Los Angeles Wholesale Electric.

They

PHOENIX, ARIZ.—"Let's talk business. . . ." keynoted the program of the annual convention of the western region of NAED at the Westward Ho Hotel here on October 1, 2 and 3. But the business talked about was based on: 1) distributors performing their full function, and 2) distributors getting and keeping full compensation for full service, a review of the eight major speeches shows.

Coming to this booming "Valley of the Sun" from all sections of the western region, Hawaii and Alaska, were more than 600 distributors, their wives and industry guests for three days of sun, fun, and serious analysis of how well the distributor is maintaining his position functionally and profitably in

Pro and Con Comments Fly As Speakers

No good speech begins and dies with the few minutes a speaker has on the rostrum, all convention goers know. The interest engendered by a good speech reaches out into the halls, the lobby and long afterward into the smoke-filled and Bourbon-scented rooms. This was true of all speeches given at the Phoenix, Ariz., convention of NAED's Western Region. On three of them ELECTRICAL WHOLESALING presents here pertinent quotations followed by varieties of comments recorded on the scene by this publication's reporters.

What Is the Effect of Manufacturers' Local Stocks on Your Business?

Said N. J. MacDonald, president, Thomas & Betts Co.:

An Oregon distributor comments:

". . . we used local factory stocks in the beginning, when we first went into business . . . stocks the factory representative had . . . now we are opposed, they are a hindrance to our normal function."

Says a wire manufacturer's representative, Los Angeles:

"I see the point, but let's face it . . . the distributor wants to have his cake and eat it too. He wants to keep his inventory low and use us frequently, and then he yells because a competitor who keeps his inventory at nothing gets the same service from us . . ."

Another distributor, long established:

"A problem we all face . . . working capital . . . reason why many of us use the local stocks although we really know it is hurting us in the long run . . . if all the manufacturers closed out their local stocks it might kill off or cure the broker type of wholesaler, but it would seriously make a financial problem for the big distributors . . ."

REAPPRAISAL of distributor's functions was urged by N. J. MacDonald.

FASCINATING electrical future was envisioned by Anaconda's S. J. Rosch.

ADDED VALUE of distribution stressed by H. L. Cramer of Westinghouse.

Touched All the Bases

an era witnessing an all-time record in the production and movement of electrical goods.

• **The Kickoff**—W. B. Meek, WESCO, Los Angeles, and vice president of NAED's western region opened the series of major speeches with the keynoting "Let's Talk Business—Western Style."

He combined an analysis of the present and future growth potential of the Far West with insight to the position and the responsibility of the electric supplies distributor in this expanding market. The economic factors involved in this area expansion, particularly the problems of getting sufficient investment capital, was covered by the next speaker, Carl A. Bimson, president, Valley National Bank, Phoenix.

"Why Keep It a Secret?" asked N. J. MacDonald, president of Thos. & Betts Co., Elizabeth, N.J., in the closing speech of the first day's session. In a frank and penetrating analysis of manufacturer-distributor relationships, Mr. MacDonald pointed to the necessity of the wholesaler reappraising his future as a full-functioning distributor. In particular, he referred to the trend toward manufacturers assuming warehouse and service facilities of distributors at local level, and the results of distributors making use of such facilities and services at the expense of their own operations.

• **Something New**—An innovation in NAED programming was tried on opening day when the traditional "Commodity Committee Reports" were presented at an open meeting to which manufacturers and manufacturers' agents were invited to hear papers presented by Stanley M. Johns, Electric Corp. of Los Angeles, and by James B. Hartwig, North Coast Electric Co., Seattle. Mr. Johns explored the future of the supplies distributor in the sale of engineered products, particularly panelboards and switchboards.

Following basic changes in the industry's approach to the marketing of these goods—particularly the need for standardization and for a discount structure that compensates for warehousing and service, Mr. Johns saw a future for the distributor who would: 1) train his organization to handle en-

Continued on next page.

Hit Hot Subjects At West Coast NAED Convention

A suburban wholesaler in southern California:

"N.J. hit it on the nose . . . we're against local factory stocks and against the manufacturers who put them there . . . if they continue, I'm not sure what future we'll have."

Which Way Have You Found Best to Sell Lighting—Specialist or Full-Line Salesmen?

Said James B. Hartwig, North Coast Electric Co., Seattle, Wash.

". . . I believe we must lay the foundations in our own organizations for a lighting department that can function in the true sense of the name . . . headed by a man with proper credentials who is qualified to assume this sales assignment.

"The distributor must be willing to pay the salaries necessary to get good lighting men. . .

"Insist that the regular salesmen have a working knowledge of lighting, and handle lighting problems as they arise that are within their capacity. There is too much tendency, once a lighting department has been set up and functioning, to pass the buck on everything—regardless of size or importance—over to the lighting department.

". . . next in importance, the selection of lines best suited to your type of operation, with ample thought given to the manufacturer's policies.

"We come to the most important function, by far . . . the carrying of an adequate stock. If a distributor fails here he should be willing to step out of the way of progress.

"Sell through recognized channels of distribution, and do not compromise your best customer, the contractor's position. A positive policy will command respect and

Continued on next page.

gineered products; 2) show manufacturers that he is qualified to handle them; 3) sell suppliers on economics of distributors handling the full details of this business; 4) urge contractors to value the qualified distributor's service on engineered products; 5) sell suppliers on using only distributors who qualified themselves for the full function.

Mr. Hartwig covered the subject of distributors selling commercial and industrial lighting equipment through specialized departments. He suggested a policy that includes the distributor: 1) setting up a department staffed by lighting men; 2) picking lighting lines backed up by sound manufacturer policy; 3) carrying enough stock to be able to handle most orders from warehouse; 4) setting a firm pricing policy that compensates for the cost of specialized lighting service.

• **Need Leadership**—Members and guests here were presented on the second day with a report by NAED's executive director, Arthur W. Hooper. In analyzing the progress of electrical supplies distribution, Mr. Hooper told of the need for more leadership by the responsible firms in the industry to help establish more sound policies for the industry. The individual distributor must exert more leadership within his own concern, too, said Hooper. The distributor must set up sound policies on price, credit, purchasing, etc., and communicate these policies to his entire organization. And the policy must be thoroughly explained to customers and suppliers as well, he said.

Chas. H. Winship Jr., vice president, Phelps-Dodge Refining Corp. spoke to members and guests on conditions affecting the supply of copper to the market. He was followed by a presentation of NAED's slide film on the "Ten Steps to Better Distribution." Commentary was handled by E. C. Phillips, program chairman and W. B. Meek, regional vice president.

• **A Look Ahead**—A fascinating future for the electrical industry was envisioned before members and guests by S. J. Rosch, consulting cable engineer, Anaconda Wire & Cable Co., at the closing business session. In this fabulous future, Mr. Rosch sees the time when synthetics will be much more of a factor than today, when distributors will be selling mostly 250-v materials for house wiring, and when the selling of electric materials suitable for use in the 500-deg centigrade temperatures of nuclear reactors will not be unusual for the electrical supplies distributor.

Realistic evaluation of mutual problems of the distributor and the manufacturer is necessary, said H. L. Cramer, manager, agency and construction sales dept., Westinghouse Elec. Corp. In his address on "Distribution—An Added Measure of Value," he pointed out that as partners, the manufacturer and the distributor must look at the need for market coverage. The manufacturer's survival depends on market coverage—he must insist on it—he must get volume somewhere, Mr. Cramer stated. The distributor can gear himself to give the manufacturer this market coverage, and do it at a profit, he said, but the distributor's philosophy must be pointed toward the necessity of building the volume sales that the manufacturer needs.

• **Lighter Side**—The three day meeting of the western region members and guests included a cocktail party sponsored by manufacturers and

attract business.

"Support the manufacturer who has a good clean policy, and don't let any eager commission representative dictate to your quotation department the price at which you have to sell your lighting equipment on a give-away basis. . .

"Lighting can be good business . . ."

A distributor from the Mountain states says:

"A good idea I guess, if you can get enough business. If we got all the lighting business in the area we still couldn't justify the cost of a specialist . . ."

A fixture manufacturer representative in California:

". . . some distributors can do it but it takes a terrific investment—you don't get results right away—and then the distributor will always be facing competition from the guys who can cut his price because they use the factory engineers."

A large metropolitan distributor stated:

"Jim has the right idea but I hope too many of our competitors don't take his advice. Our lighting department is cornering a good chunk of the business up our way . . . we're getting the real big jobs and we're making money . . . but it took a lot of money and a lot of sweat to get that department going."

A large distributor points out:

". . . the specialized department is a good idea, but sometimes things are rough when you have to bid against the ones who'll do the job at cost to get just a verbal guarantee of the fixture contract . . ."

What Chance Do You Think You Have of Getting More Business In Engineered Products?

Stated Stanley M. Johns, Electric Corp., Los Angeles:

"The marketing and distribution of panelboards-switchboards present some real problems for all of us . . .

"Panelboards and load centers point toward becoming strictly 'off the shelf items' . . . in the past have been mostly direct shipment with a correspondingly lower discount spread to the distributor.

"If the current trend of prefab standardization continues, and the distributor adds these items to his regular stock, then he is entitled to compensation for the added value of his service . . .

"This new phase of marketing panelboards and load centers can be a boon or a booby trap to the electrical distributors. It is up to each of you to decide which it will be."

Regarding the distribution of switchboards, or engineered products, Mr. Johns said: ". . . the present sales plan of most manufacturers . . . salesmen in the field who are trained as product specialists. They often call on the ultimate owners . . . areas in which they are well qualified to operate.

"But, they don't stop there. They go right into our field—calling on our customers. They talk price, they establish your commission rate, and all other commercial aspects of the job are usually settled without you . . . often settled before anyone knows for sure just which electrical distributor will become the third party to the deal . . .

representatives, the traditional golf tournament, and a closing "banquet and dance." A special luncheon for members, guests and their ladies was addressed by J. T. Kimball, vice president & general manager of Idaho Power Co.

Sam W. Mesick, Los Angeles Wholesale Electric Co., was elected by the members to serve as vice president of the Western Region of NAED for the coming year. General arrangements for the convention were chairmanned by J. T. Doughty, Phoenix Electric Supply Co., and the program was arranged by a committee under the chairmanship of E. C. Phillips, Coast Electric Co., San Diego, who presided at the meetings. Coordination was by W. M. Jewell, western region manager.

HONOR SCROLL is awarded A. W. Rockwell (r.) for long service to NAED by Harry Perl, State Electric Supply, Oakland.

MANUFACTURERS' CUP was won by Al Snowball (l.) Pittsburgh Standard Conduit. Golf chmn. Ernie Karsten presented.

"Manufacturers of these commodities needed distributors who could make some contribution to the sales transaction. It didn't work out that way. Our distributor salesmen were not qualified and so the manufacturer was forced to train and provide his own salesmen. The result has been . . . we have become a third wheel . . .

". . . If we are content not to be a party to the transaction except to process papers, we are not really contributing and perhaps we should be entirely eliminated. Perhaps we should and perhaps we will—unless we recognize our precarious position and do something about it before it is too late . . . there are several things which can be done and should be done at once:

". . . Being sure your organization is qualified to handle this business . . . long, hard training program . . . or hire a product specialist who knows this business and is competent to handle the technical aspects as well as train your salesmen.

"Second . . . tell your switchboard suppliers that you are now fully qualified . . . (to handle) the commercial aspects of the job, the handling of price quotations to the contractor on your stationery and the clearing of subsequent changes.

". . . Point out to suppliers the economic desirability of having the whole transaction pass through you to the customer . . . select a few of your key contractor accounts and urge them to use your complete services . . . get some contractors to suggest this procedure to the manufactures . . .

". . . Determine once and for all your policy on how much mark-up you need to handle this type of business . . . be sure your salesmen have a clear grasp of management thinking in this matter.

". . . We must demonstrate the economic advisability from the manufacturer's standpoint of selling those engineered products through distributors who are qualified to perform these semi-technical sales functions . . ."

Comments a Northwest distributor:

"There's more of that business coming if the wholesaler is qualified to handle it . . . providing the wholesaler can take off the job, advise and recommend—offer full service . . ."

A nearby distributor agrees:

". . . very much of a future. Average job runs $800 to $2,500. Now can be assembled from standard component parts. But we pass by some panelboard jobs when we anticipate difficulties because 5 percent is not enough. With an 18 per cent commission we are able to stock it . . ."

A distributor from a metropolitan center believes:

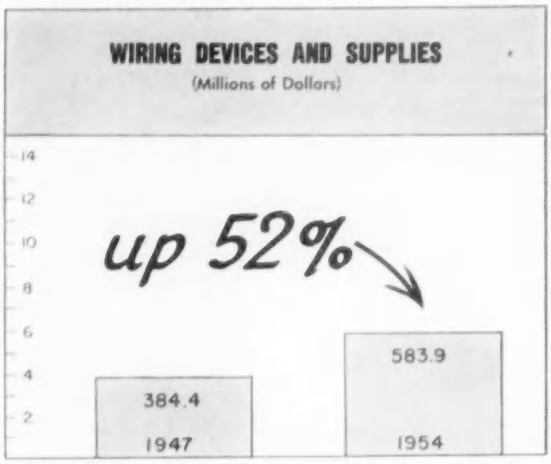
". . . there's a future, but not without problems. The manufacturer's engineering and sales staff are too well established—they don't want to see those staffs cut down because we take over a lot of the work. We're asking to take away their bread and butter—or come to work for us. Don't expect full cooperation . . ."

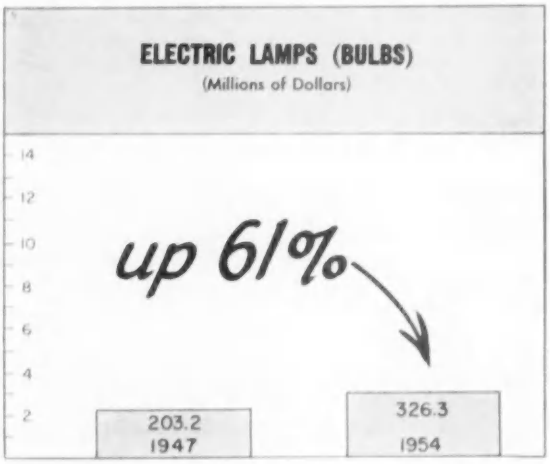
Says another, equally large:

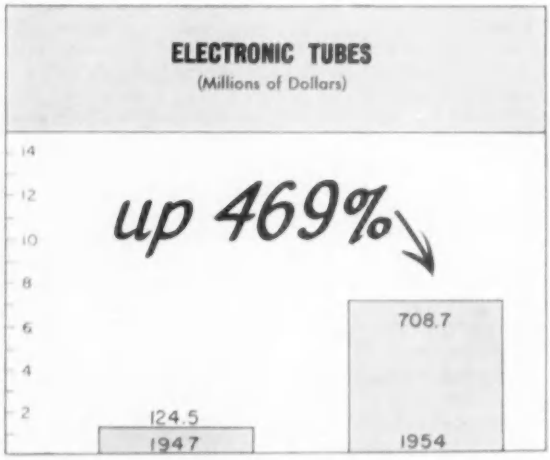
". . . same problem as in lighting—costs a lot to hire or train specialists. Too easy for us to go along and take a couple of hundred here, another hundred there, for handling that paper work Stan mentioned . . ."

How Do Your Sales Compare

Overall growth of the electrical goods trade from 1947 to 1954 has far outdistanced past predictions. Though war-baby electronic tubes industry shows greatest gain, producers of distributor's staples—wiring devices and supplies, motors and generators and lamps—also outrun general national manufacturing growth.







LATEST advance reports on the 1954 Census of Manufactures shed dramatic light on America's surging production during the seven years from 1947 to 1954.

While manufacturing growth as a whole has boomed, the electrical goods trade in particular has more than lived up to even the most optimistic predictions made in 1947, the Bureau of Census figures indicate.

To give you a quick visual sketch of this electrical manufacturing growth, ELECTRICAL WHOLESALING has shaped the Bureau's statistics on the value of manufacturers' shipments into quick-reading bar charts (right).

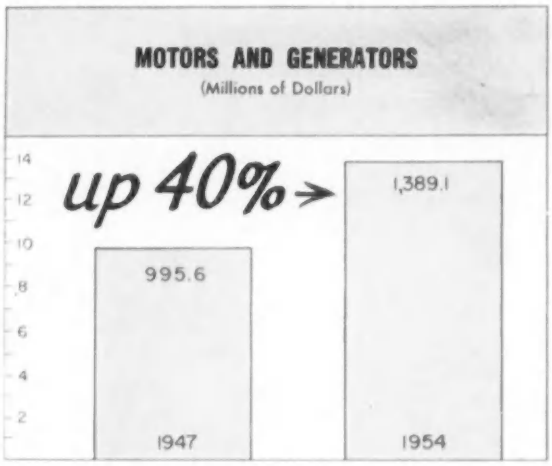
You'll note that the nine general product categories presented do not include "Wires and Cables" or "Lighting Fixtures." Preliminary reports on these important groups will not be available until late this year, at which time EW will present them to complete the picture.

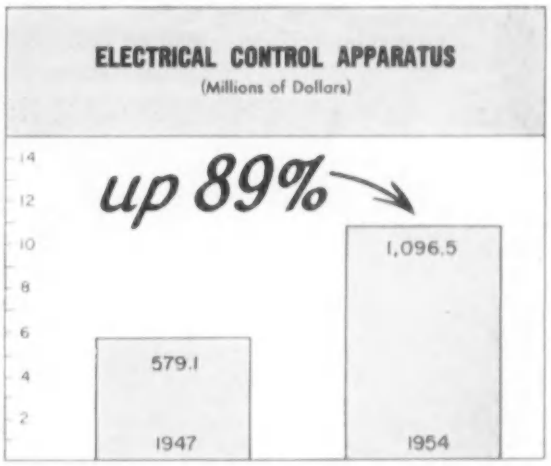
Following are detailed explanations of what products are included under each of the Bureau's general categories:

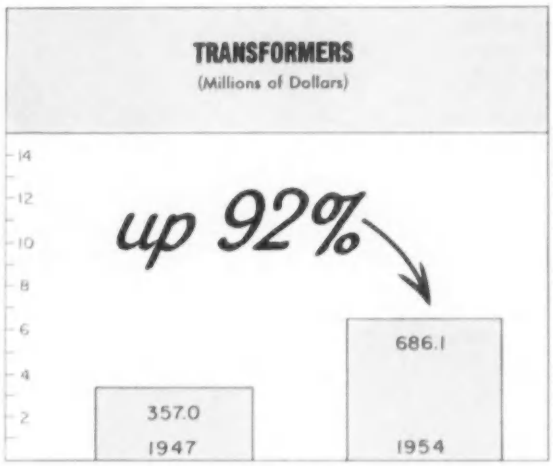
- **Wiring Devices and Supplies** industry represents manufacturing establishments engaged primarily in production of wiring devices (attachment plugs and caps, convenience outlets, lamp sockets and receptacles, and snap switches); wiring supplies (pole-line hardware, conductor connectors, overhead trolley-line material, and rail bonds for both propulson and signal circuits); electrical insulators and insulation materials; conduits and fittings.
- **Motors and Generators** industry represents manufacturing establishments engaged primarily in the manufacture of electric motors (except starting motors) and power generators; motor-generator sets; railway motors and control equipment; motors, generators and control equipment for gasoline-electric and oil-electric busses and trucks, including storage battery trucks.
- **Electrical Control Apparatus** industry represents manufacturing establishments engaged primarily in the manufacture of switchgear, switchboard apparatus, and industrial electrical controls. Important products of this industry include power switches, circuit breakers, contractors and similar switchgear for general industrial ap-

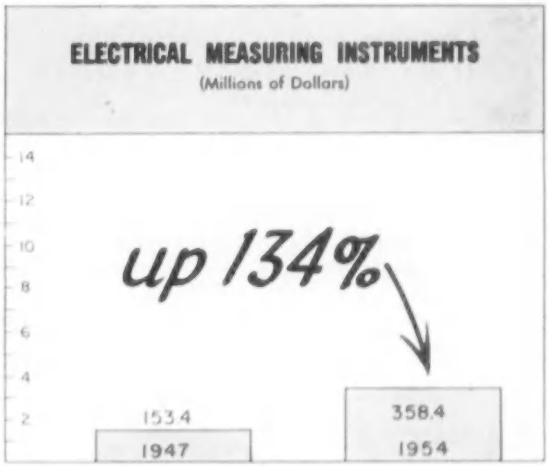
Continued on page 122

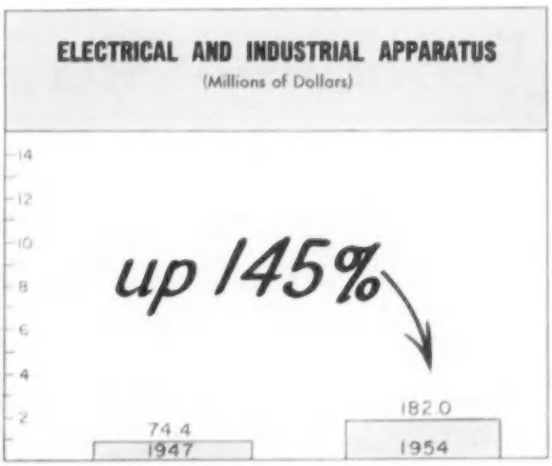
With This 7-Year Growth?

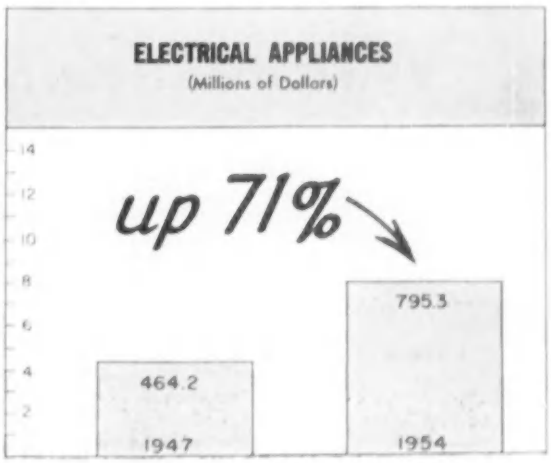


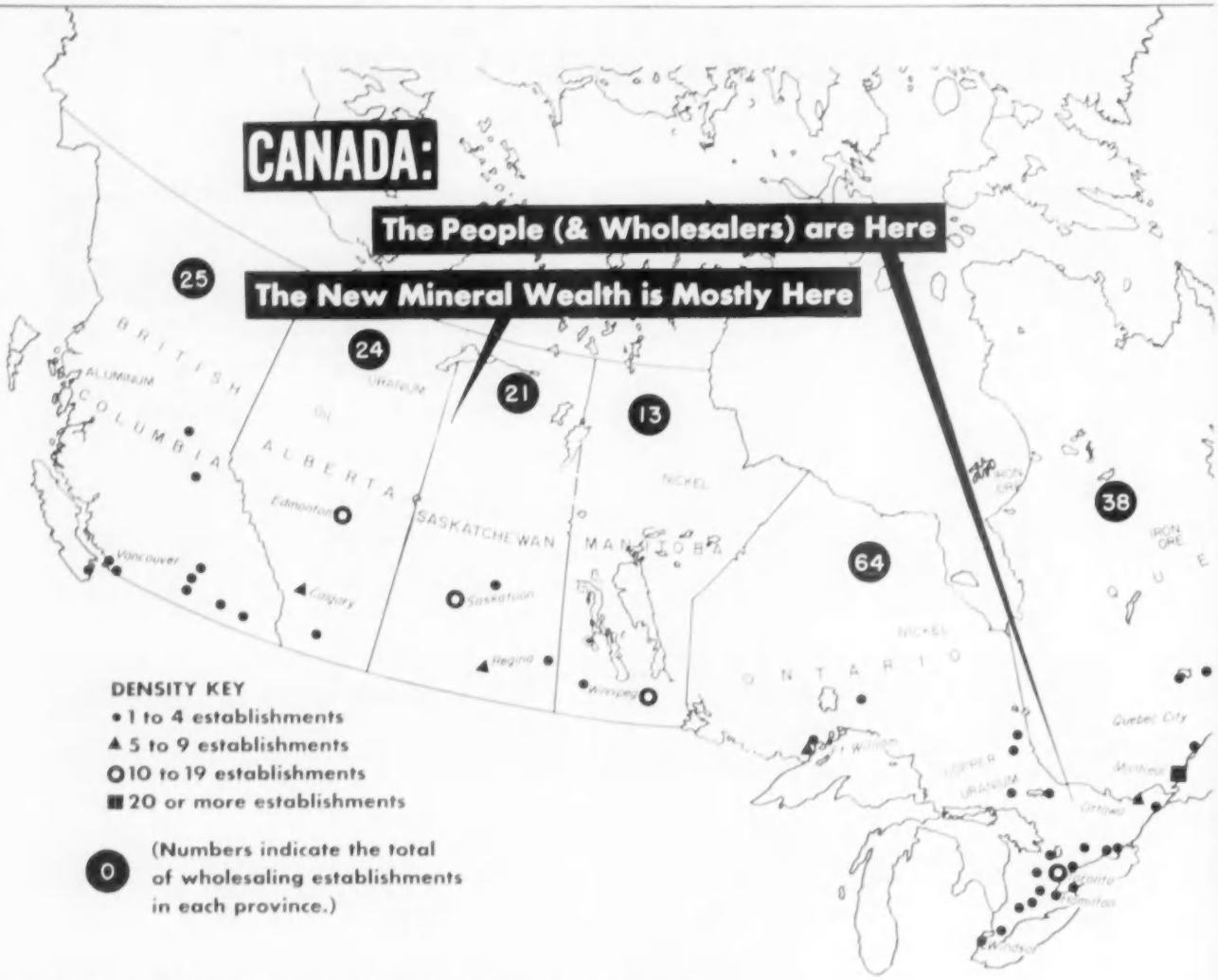












This map is based on the "1956-57" Directory of Verified Electrical Wholesale Distributors."

A SPECIAL REPORT

Wholesalers, Economy Grow

- Canada's electrical wholesalers are doing upwards of 100 per cent more business than they did 10 years ago—at neat margins.

- Back of this gain lies a prosperous economy. Gross national product is up 246 per cent since 1946, and still growing.

- Right now, Canadian wholesalers are very bullish. But, by their own admission, they face stiffer competition in years ahead.

Together

By Durward Humes

CANADA is going places. Growth is the big word. You see and hear about it everywhere: in statistics, in the construction that's going on, in talking to electrical wholesalers.

There are obvious signs of expansion in eastern Canada. The St. Lawrence Seaway and power project is moving right along; electrically, it will mean an additional 1.2 billion-hp by 1959. Construction is booming in Toronto and Montreal, as they and other St. Lawrence-Great Lakes cities get set for the water traffic that's coming. And huge tracts are being sold to industry for post-Seaway development in the Hamilton-Niagara Falls area, in what has been fruit and wine country.

This is where a good portion of Canada's people live (*see map*). Equally big changes are coming in the north, where the mineral wealth is found. Iron ore is beginning to come out in a way unknown since Minnesota's Mesabi range was opened up. Prospectors and industrial teams are finding new nickel, copper and uranium deposits every year. This means smelting and processing plants, and the industrial future that only mineral discoveries can give a nation.

All this comes on top of a prosperity which matches—if it doesn't out-pace—that of the States (*see chart, next page*). Gross national product is expected to be up seven per cent, 1956 over 1955—and up another 250 per cent by 1980.

The electrical manufacturing industry is running well ahead of the GNP. It's up 400 per cent since '46, compared to GNP's 246 per cent.

Where Wholesalers Stand

The electrical wholesaler is doing pretty well, too. Though precise figures aren't available, the best guess is that wholesalers' sales are up at least double in the postwar years—and probably more, since they characteristically parallel electrical manufacturing sales.

THIS Special Report is based partly on a mail survey of Canadian wholesalers, their practices and thinking, and partly on a field trip to Toronto and Montreal that took in talks with wholesalers and a wide range of electrical industry people.

More articles on Canada's fast-growing electrical wholesale industry will be forthcoming in EW. The purpose is two-fold: to fill in our readers on what's happening elsewhere in the electrical wholesale field, and to offer another yardstick for measuring progress and growth.

How do Canadian wholesalers react to the future economic outlook? We asked them in a survey, and the replies were very optimistic:

- "We are planning for increased participation in an expanding market. Specifically, we look for a 10-15 per cent sales increase per year for the next 10 years."
- "Growing at rate of 12-14 per cent each year."
- "Extended every year due to new capital expenditures by major industries and more people with a better standard of living."
- "Industry advancing; firm highly optimistic."
- "Very good in this part of the country."
- "Good, good, good."

Part of this optimism, they add, is based on continuing good margins. (Said one wholesaler: "Even the tightest bid jobs go for 5 per cent or more; we do a lot better than the fellows in the States.") At the same time, there's enough business to spread around nicely.

There Are Problems, Too

But the same general problems that face American wholesalers crop up in Canada. And worry about them is compounded by the fact that the last decade has been so good.

The problems getting the most attention are direct sales, price-cutting, diluted distribution, lack of preparation for selling increasingly important industrials (particularly a shortage of technical-trained salesmen), and generally inefficient inside operations.

As Canadian wholesalers see them, these problems are directly related to today's profitable operations. They took root in rich soil. As competition gets stiffer, these problems probably will get acute—and then the pressure will be on "to cut out the fat."

But this is only the worrisome lining to an essentially silver, optimistic cloud. As one wholesaler put it, "If we keep growing, many of our problems will lick themselves."

For analysis of "typical" Canadian firm, turn page

The 'Typical' Wholesale Firm—

How do Canada and the U.S. compare . . .

. . economically?

	U. S.	CANADA
population (m.)	170	15.8
gross national product (b-$)	408.5	29.5
per capita income ($)	2,432	1,844
construction (b-$)	21.0	6.25

By 1980, Canada—whose GNP has been growing faster than that of the U. S.—looks for a population of 28 million, a GNP of $70 billion, and a 50 per cent jump in per capita income.

This is where Canada's growth shows: $\frac{1}{6}$ the construction with $\frac{1}{13}$ the national income. Construction figures reflect Canada's increased mineral output and industrialization.

. . electrically?

kilowatt hr. sales (b.)	527	69
per capita kwh use (ann.)	3,215	4,915
manufacturers' shipments (b-$)	17.4	1.1
kwh cost (c)	1.5	.8

9 of 10 Canadian residences are electrified. There's heavy industrial kwh consumption—and, as yet, electricity has no competition for the homeowner's dollar in eastern Canada (where $\frac{2}{3}$ of the people live).

Only Norway (at .4¢ per kwh) sells electricity more cheaply than Canada. And Quebec, with abundant water power, comes close: .45¢ per kwh.

. . in electrical wholesaling?

number of houses	1,714	127
outside salesmen (aver.)	4.3	4.9
inside salesmen (aver.)	3.2	3.5
inventory (aver-t-$)	100-250	50-100
floor space (aver-sq ft)	17,233	16,058
years in business (aver.)	23	34

Less houses, with more years in business. More salesmen. Lower inventories . . . That's how independent Canadian electrical wholesalers compare with U. S. wholesalers on EW's "Basic Dimensions" scale. For detailed interpretation—and other Dimensions information—see opposite page.

Trends and Problems

WHOLESALING IN CANADA

THE TYPICAL independent Canadian electrical wholesale firm has been, in terms of averages, in operation for 34 years, has $50-100,000 worth of stock, 16,058-sq ft of floor space, and 8.4 salesmen (4.9 outside and 3.5 inside).

These figures are the heart of EW's measurement of the industry—the "Basic Dimensions." Last presented on American wholesalers in May 1955 (EW—p. 101), this is the first Dimensions study of Canadian wholesalers. The national chains are not included, but are covered below. (*For other highlights, see charts.*)

Beyond this cold, graphic summary lies a story—one that is best presented in terms of trends, not absolutes. Here, from EW's Canada survey and from a series of interviews, is how Canadian wholesalers stack up.

There are more similarities than differences between wholesalers in Canada and in the U. S. Canadian firms sell the same products (many of them made by American-owned companies) to the same customers (contractors, dealers, industrials). They also face the same main problems, whether internal (reduction of overhead) or external (price-cutting and direct sales).

Canada's houses are centered in the east—with Toronto and Montreal the main cities—and in the far west, where Vancouver is the leading city. Houses in the east are mostly electrical-only. Those in the west, covering the ranging provinces, tend to be combination houses.

Companies are "older," primarily because Canadian distribution hasn't become as specialized as it is in the U.S. A good percentage of all houses carry both appliances and supplies. What's more, the States' post-war influx of new houses hasn't been matched.

Houses are smaller . . . and they have less inventory per house. This relates directly to the market. While the economy is booming, it doesn't yet support wholesaling—or manufacturing—on the U.S. scale. (In some areas, one observer says, lack of floor space holds down inventories of apparatus and heavy supplies.)

. . . Yet there are more salesmen per house. Part of the story is in the west where wholesalers cover huge territories. And part is in the heavy contractor emphasis. Industrial customers are becoming more important but right now, there's lots of low-volume contractor calls in a spread-out country—and that takes sales manpower.

Facilities are older, too. The median firm surveyed has been in the same location for 20 of its 34 years, mostly in multi-story buildings. A good-sized minority, however, is planning moves away from congested business centers. (In Toronto, for example, at least two firms are already operating small branches in the outskirts. Several other firms have moved their entire operations away from downtown.)

Competition is increasing. Nearly all wholesalers said that the number of houses selling in their service area had increased since WWII; the average cited was about 50 per cent. Part of this new competition comes, they say, from new houses, and part from expanded territories of established houses. Said one wholesaler: "We're all trying to serve the areas opened up by mineral discoveries: that's where the new houses are coming." Added another: "There's more competition, but still plenty of business to go around."

Departmentization is a comer. Most wholesalers handling appliances and supplies, like their U. S. counterparts, segregate their operations. Lighting, too, is often in a separate department, and a few firms have men heading up special product fields (such as space heaters, motor controls, etc.).

Inside operations, wholesalers say, are not as modern nor as efficient as might be desired. Buildings, being old, are often chopped up and lack material handling equipment. "Office techniques," says one wholesaler, "are generally outdated. The amount of paper to be handled has increased, but the methods of handling it haven't changed much." Says another: "Few wholesalers have good inventory control, and even fewer have any real control over sales."

Outside salesmen come mostly up the ladder from the inside. The method of sales compensation is divided about evenly between straight salary, commission, and salary-

Products and Customers

Product Group	U. S.	Canada
Electrical supplies	100.0%	100.0%
Commercial lighting	97.2	94.2
Industrial lighting	97.6	81.9
Residential lighting	82.4	87.0
Motors	60.1	75.8
Motor controls	93.0	75.8
Pole line hardware	69.0	64.0
Power tools	61.5	64.0
Electric heating	70.0	71.6
Electric housewares	65.0	87.0
Major appliances	37.0	51.2
Television sets	24.3	38.4
Electronic parts, tubes	18.6	35.8
Air conditioners	66.3	53.8

These are the major product categories stocked and sold by electrical wholesalers in the two countries. The striking similarity in percentages on apparatus-and-supplies reflects the fact that A&S is the heart of the business. But Canadian distributors put more emphasis on housewares and appliances. This may be due to the smaller degree of specialization, compared to the States, on the wholesale level: the A&S distributor seems to have a bigger role in the appliance picture.

	Contractors	Industrials	Dealers	Others
United States	50.4%	26.3%	19.8%	3.5%
Canada	41.8	19.5	34.0	4.7

This is how the typical wholesale firm breaks down its sales to customers. The main difference—on sales to industrials vs. dealers—comes from Canada's lower (but rapidly increasing) stage of industrialization, and on the merchant wholesaler's bigger role in handling appliances. The swing is now from dealer to more industrial-type products and sales.

WHOLESALING IN CANADA

Wholesalers: Trends and Problems

plus-commission. Half of the surveyed firms pay on the basis of gross profits.

Getting, training and keeping good salesmen is a wholesaler headache. With industrials coming into the expanding market picture, wholesalers find that their own industry hasn't provided a deep backlog of field-trained men and that school-trained engineers naturally go into higher-paying industry jobs. There's talk of wholesaler and manufacturer cooperative efforts to beef up salesman training, both general and product. Says one wholesaler: "In these boom times, salesmen are on commission too much. They concentrate on high-profit items and tend to ignore industrials. What's more, the lack of salesmen is slowing wholesaler expansion."

Industrials, as in the U.S., are rated the best credit risks. All surveyed firms said that industrial accounts were "good risks." Dealers ranked next, with the majority rating them "fair." Contractors came in third, half rating them "fair" and half "poor."

Most wholesalers are keeping a weather eye on credit, mostly because of "boom-time psychology" and their own high inventory investments. Reports differ, however, as to the overall picture—possibly because, as in the U.S., the use of credit associations and other reporting channels is spotty.

THE CHAINS, at first look, are equivalent to their counter-parts in the U.S. There are, however, important distinctions.

- Canadian General Electric Co., Ltd. operates a Wholesale department; Gesco, in the U. S., functions as a division. CGE-Wholesale has six districts covering all of Canada, run from a downtown Toronto headquarters, according to C. A. Morrison, vice president and general manager. There are 32 houses, with 1,560 employees. Emphasis is on "mother warehouses" within each district, feeding merchandise to smaller, rented facilities (including, since a start in Prince Rupert, B. C. in 1948, many small counter sales operations).
- Canadian Westinghouse Supply Co., Inc. is part of the Consumer Products division, according to J. E. Cranswick, apparatus and supplies manager. The A&S operation is the newest of the chains, having been set up in 1951. It has six districts (with 14 "full branches" and three sales offices) and has 900 employees. It usually shares offices and operating staffs with the CP division.
- Northern Electric Co., Ltd. is roughly Canada's Graybar on the electrical wholesale level. According to V. O. Marquez, marketing manager for the General Sales division, the wholesaling organization is an integral part of the parent manufacturing company. Northern has 1,250 employees and operates, from the Montreal headquarters, 37 stocking houses and a few sales offices.

OPERATION-WISE, as outlined above, here are many similarities between Canadian and U. S. wholesalers. But the most striking similarity is in the problems that both face: what those problems are, and what wholesalers are using as remedies for these headaches.

CEDA's head is General Manager Norman Franks. He has run the 70-member wholesaler group since 1953, puts stress on practical product committees.

In Canada, the biggest problem is price-cutting—and, to a lesser extent, its twin, direct sales. Over half of the surveyed wholesalers said, pointblank, that maintenance of manufacturers' resale price schedules is difficult if not impossible. Here's how they put it:

- "Prices are cut in the Province of Quebec to such an extent that we wonder if there's any sense in it."
- "Price maintenance on quotation is impossible to maintain, and has been deteriorating slightly on regular business."
- "We are continuously faced with the problem of competing with a small percentage of wholesalers who seem to have adopted the policy of taking a 'brokerage fee' of five per cent or so on volume orders."
- "Indiscriminate selection of wholesalers by manufacturers brings price-cutting, especially from brokers or wholesalers who do not carry adequate stocks."
- "Manufacturers should not distribute their products direct to retailers and undersell their distributors."
- "Price cutting by wholesalers themselves along with direct sales by manufacturers."

How are distributors fighting these trends? Here's what they said:

- "By developing a service staff which takes a personal interest in customers' problems and requirements, and giving good counter and shipping service. We have weaned some customers away from a preferential discount by showing them that poor service costs them more than they save on materials. Unfortunately, it doesn't always work out this way."
- "By increasing our turnover, bettering our service, handling more lines of an exclusive or semi-exclusive nature and by selling the slogan, 'Our service is not for free—is yours?' "

RIGHT NOW, the price-cutting problem isn't full-grown. But it's there and growing—and wholesalers are healthily aware of its potential importance.

But they feel that price competition is closely allied with their own practices and future outlook. Can they modernize and expand fast enough—in a boom country where so many markets are being, in a sense, created—to exploit them and preserve their share of the electrical market? Wholesalers generally feel that time, and their consciousness of their problems, are definitely on their side.

The Electrical Industry—In Brief

WHOLESALERS are only one segment of Canada's electrical industry. The industry—how it stands today and where it's going tomorrow—depends on many groups, many pressures and many trends. Here's a rundown of the highlights:

CEDA (Canadian Electrical Distributors Association, Inc.)—like the industry it represents—is gaining strength.

CEDA, formed in 1934, has 70 members—all independents, since none of the chains belong. Headquarters are in Toronto, under Norman Franks, the general manager (*see photo*). Annual meetings are held, one in the east (with about 200 members and manufacturers attending) and the other in the west (with about half that attendance). Monthly area meetings have been added recently in Toronto and Montreal.

Franks has put much emphasis on product committees, on the NAED-model. Eight committees have been set up, covering such subjects as standardization of catalog numbers and better identification of cartons.

Some CEDA effort is being made in the sales training field. And, Franks says, there's work ahead to improve wholesaler operating statistics.

Manufacturers of electrical supplies and apparatus, despite a 400 per cent volume growth since 1946, are by their own admission caught between low volume of sales and the foreign market.

Low volume keeps unit prices up somewhat and slows the switch to more efficient machinery—and draws manufacturer criticism of wholesalers, who by their reluctance to order quantities in advance, slow the process even more. Foreign prices, on the other hand, are a downward control factor. U.S. prices, plus the 15-22 per cent Canadian tariff, set an obvious maximum. Efforts into the Canadian market, especially in the form of non-metallic sheathed cable and heavy apparatus, come from the U. S.

Relations between distributors and manufacturers are generally good, although it's agreed that neither party is doing a top job of promoting brand names and products. Both are worried about lack of trained electrical salesmen, and plan to do something about it.

Manufacturers are organized into CEMA (Canadian Electrical Manufacturers Association). Built on the same pattern as NEMA, it has 142 members. Napier Simpson is general manager.

"Hydro" means water, and as the Canadian term for its electrical utilities, highlights the industry's long suit.

With 15.6 million-hp of generating capacity installed, Canada ranks fourth in the world in electric power production. Output is doubling every 10 years—as it is in the U. S.—with only 27 per cent of the hydro-power harnessed so far. There's only one catch: with the exception of sites in Quebec, British Columbia and Newfoundland, much of this untapped power is too far from the population centers for profitable use at present.

Parts of Canada are dominated by public-owned utilities. The giant St. Lawrence power project, for example, is half American and half Ontario Hydro-Commission.

CEA (Canadian Electrical Association) is the utility organization. It includes private power companies and electrical manufacturers, plus individuals working for public utilities. Total membership: 1,346. With headquarters in Montreal under Managing Director B. C. Fairchild, CEA—with general, sales, and operating and engineering divisions—is much like the Edison Electric Institute.

Contractors are organized on a provincial basis. Just recently, under Quebec's leadership, CECA (Canadian Electrical Contractors Association) was formed. Its main purpose is to represent 6,300 contractors nationally on industry-wide groups, on legislative matters and in de-

Electrical Progress Shown at "Ex"

YESTERDAY AND TODAY was the theme of Ontario Hydro's display at the world's largest annual fair, the Canadian National Exhibition. This 40-ft diameter display, showing an Ontario town in 1906 and now, marked the utility's golden jubilee. The fair, known as the "Ex," is held in Toronto.

APPLIANCE displays at the "Ex" took up a complete building, drew large crowds. Here Jack Graham, Canadian General Electric-Wholesale department, explains elements of new kitchen to interested consumers. Manufacturers' exhibits displayed the latest products—including electronic range.

ADEQUATE WIRING is stepping into second gear in Canada. In October, CEMA decided to increase its financial help to the Red Seal program—as AW is known—nearly five times, from $41,000 yearly to $175,000 in 1957. CEMA calls this "Operation Crossroads."

While CEMA coordinates Red Seal from its Toronto headquarters, the principal local arms of the program are the Electric Service Leagues. They run on a provincial basis, with five now operating, three being organized, and the other two coming up.

J. W. Kerr (left), vice president and general manager of Triangle Conduit & Cable (Canada) Ltd. and head of CEMA's AW committee, recently outlined the problems facing the movement before the International Association of Electrical Leagues meeting. He included: too much apathy in the industry, an urgent need for reinspection and rewiring of homes, too much price—not quality—competition, and too little promotion of electric living.

CEMA's steps toward a solution include more manufacturer support, nationally and province-wise, and a nationally-integrated promotional approach. This program gets under way next year.

veloping a code of professional ethics for contractors. Lucien Tremblay of Quebec is national president.

Quebec's Corporation of Master Electricians is probably unique in its setup. Under the provincial licensing law, passed in 1924, all contractors must be members. The corporation, working with the minister of labor, is responsible for disciplining members (for safety violations, too-high charges, etc.) and non-members (for working without license, etc.), accepting apprentices, effecting by-law charges and the like. Under Laurent Granger, executive secretary, the group has 2,000 members.

Governmental policies on taxes and monopoly draw two directly opposite reactions from Canadian business.

Businessmen are satisfied with the corporate tax structure. The rate on the first $20,000 of taxable income totals 20 per cent (including 2 per cent old age security tax); this is widely regarded as a boon to small business. A rate of 47 per cent applies on income over $20,000.

The Combines Investigation Act, however, was passed in 1952—and has been drawing heavy fire from business ever since. It's key provision: a definition of a "combine" as a combination, merger, trust or monopoly which "has operated or is likely to operate to the detriment or against the interest of the public."

Critics of the Act say that its stress on "is likely to" in interpretation (and on "forms" rather than real economic effects, such as technological competition) has hurt rather than helped industry. One major result has been the end of fair trade.

Other industry briefs include:

- Sales of major appliances dropped 27 per cent in 1954, then picked up slowly during 1955-6. There has been considerable retrenchment among manufacturers, though the long-term outlook (reflecting growth in population and the replacement market) is considered good.
- U. S. ownership in Canadian electrical apparatus and supply manufacturing is 50 per cent (based on 50 or more per cent stock ownership), which is higher than the average for American capital in Canada. There are also many English and Canadian controlled firms. American firms normally operate through subsidiaries, with local management and reinvestment of profits—which cuts down on gripes about "foreign ownership."
- Natural gas is coming into eastern Canada from the west. While electric power is relatively cheap, gas is expected to provide keen competition for the residential cooking and heating market. Realization of this lies, in part, behind the fast-developing AW program (*see above*).

NEW HOUSE of Union Electric Supply Co. Ltd., Montreal, covers 130,000-sq ft. It has been lauded by the French magazine Architecture—and will be covered soon in EW.

Curtis Color-Magic

GOLDEN ALZAK EDGE-GLO

Something New in Lighting

■ New Curtis Color-Magic Golden Alzak Edge-Glo brings a fresh beauty to traditionally colorless commercial ceilings. New Curtis Golden Alzak uses the same high purity grade aluminum as Curtis Silver Alzak, and has the same hard, transparent aluminum oxide sheath that forms the non-tarnishing, easily maintained finish that is Alzak, plus a life-time of permanent color beauty that never needs refinishing. New Curtis Color-Magic Golden Alzak Edge-Glo is available in 2, 4, and 6 lamp sizes and a variety of bottom closures for complete versatility and the finest in quality lighting, just like the Silver Alzak and white Fluracite enamel finished Edge-Glo. Send coupon for New Curtis Color-Magic Golden Alzak Edge-Glo data.

Curtis Lighting, Inc., 6135 W. 65th Street, Chicago 38, Illinois

Send Curtis Color-Magic Golden Alzak Edge-Glo data to:

Name _____

Affiliation _____

Address _____

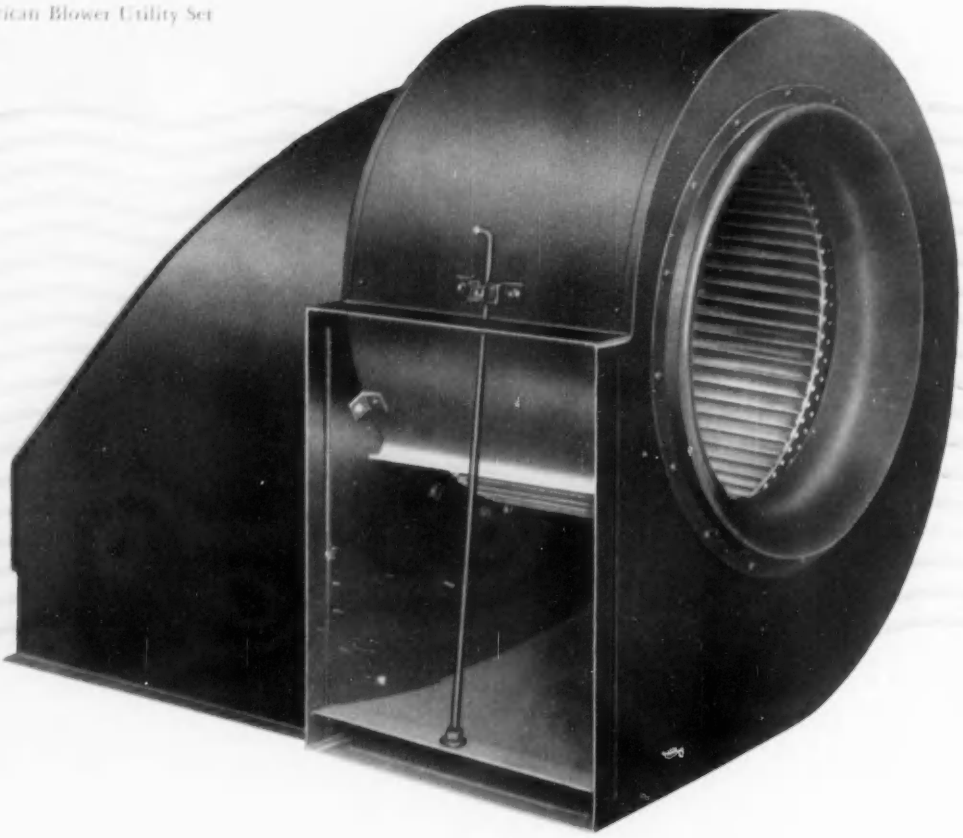
City _____ **Zone** _____ **State** _____

CURTIS

CURTIS LIGHTING, INC., 6135 W. 65th STREET, CHICAGO 38, ILLINOIS

California, 242 S. Anderson St., Los Angeles 33, California • Canada, 195 Wicksteed Ave., Toronto 17, Canada

American Blower Utility Set



We call it a utility set, because it solves so many ventilating problems

It is self-contained, consists of a motor, a Sirocco fan wheel and a housing, and is used to supply or exhaust air where duct systems are required.

That covers a lot of territory and a raft of commercial and industrial applications—from air-cooling electronic tubes in laboratories, to ventilating sprawling apartment buildings and hard-to-reach areas in factories. And that calls for a wide range of sizes and capacities. You get this large selection from American Blower.

In fact, American Blower offers a complete line of utility sets—as well as propeller fans, attic fans, and home ventilators . . . . a good reason why it pays to *standardize* on American Blower.

Why not call our nearest branch today for complete information.

IT PAYS TO STANDARDIZE ON THE AMERICAN BLOWER LINE!

- **Utility Sets** for general supply or exhaust. Ratings certified; self-contained. Sirocco wheels, 3 to 36 inches.
- **Ventura Fans** for efficient commercial and industrial ventilation; propeller type; 10 to 72 inches. Certified ratings.
- **Aeropel Home Ventilators** for use in kitchens, bathrooms, recreation and laundry rooms. Attractive design; quiet; easy to install.
- **Attic Fans** for comfort cooling at low cost in homes, apartments, hotels. Ratings certified; vertical or horizontal models.

AMERICAN BLOWER

Division of American-Standard

AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN • CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO

Dump needless paperwork in the circular file

Save time, step-up your salesmen's effectiveness!
Get your composite list from your nearest Hatfield representative . . . or write, wire or phone directly today!
It's another reason why you should handle Hatfield . . . for the best deal in carton coil or reel!

MANUFACTURERS OF ALL TYPES OF INSULATED WIRE & CABLE

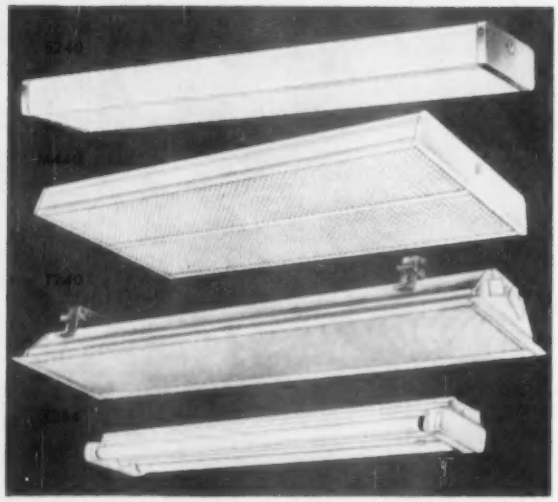
HATFIELD WIRE & CABLE DIVISION

OF CONTINENTAL COPPER & STEEL INDUSTRIES, INC.
HILLSIDE, NEW JERSEY

GOOD LIGHTING HELPS GOOD SELLING!

Carefully planned lighting plays a vital role in every area of modern retail selling—to call attention to a store window, to accent color and textures in a dress shop, to make china, glassware or silver sparkle on the shelves, to bring out the appetizing color of a T-bone steak at the meat counter.

And by stocking a single line of commercial luminaires—Miller's versatile Merchandise Line—you'll be ready to supply the very best in general fluorescent and accent lighting for any retail installation. Write or ask your Miller representative for our new Storelighting Brochure.



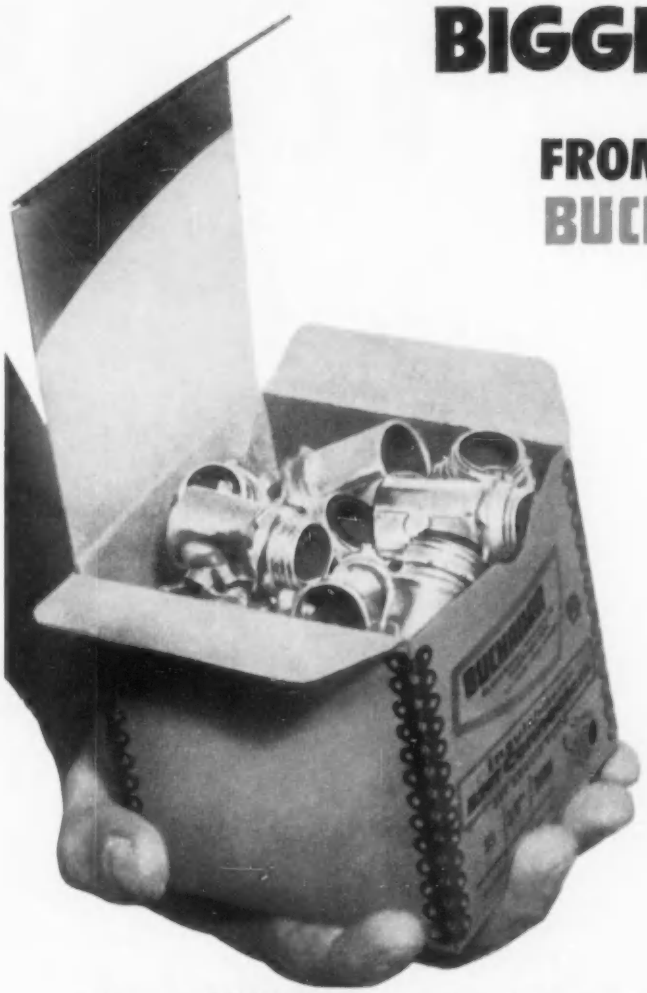
miller

Better Lighting for a Brighter America©

THE MILLER COMPANY • GENERAL OFFICES: MERIDEN, CONN. • FACTORIES: UTICA, OHIO and MERIDEN, CONN. • IN CANADA: CURTIS LIGHTING OF CANADA LTD., TORONTO

BIGGER PROFITS

FROM EASIER TO SELL BUCHANAN FITTINGS



These new **BUCHANAN**-made all-steel fittings are designed for faster selling and more repeat business. Ask your Buchanan representative how these products will help increase your fitting sales.

BX CONNECTORS
Set Screw Type

ROMEX CONNECTORS
Clamp Type

EMT CONNECTORS
Set Screw Type

EMT COUPLINGS
Set Screw Type

- All-Steel Construction
- Ruggedly Made
- Sturdily Packaged
- Clearly Labeled
- Fully UL Approved

BUCHANAN
ELECTRICAL PRODUCTS CORPORATION
HILLSIDE, NEW JERSEY

Made by the manufacturers of pres-SURE-connectors
pres-SURE-blocks • One piece Terminal Blocks • Bushend Conduit Bushings
"Snap-Action" Knock-Out Plugs • and other acceptance-proven products

Check ROYAL ELECTRIC

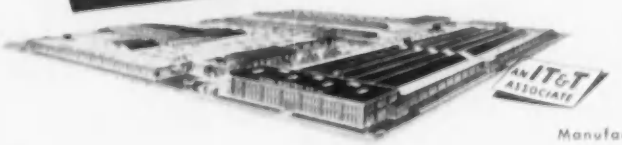
first for quality cords

6 REASONS WHY ELECTRICAL WHOLESALERS RATE ROYAL FIRST FOR SALES . . . FIRST FOR PROFITS!

- ✓ Quality-Engineered Products
- ✓ Most Complete Line of Lamp, Fixture and Portable Cords
- ✓ Top Brand Acceptance
- ✓ Modern Packaging
- ✓ Rapid Service from Stock
- ✓ Nationwide Warehouses

You always get more . . . sell more . . . when you feature the profit-proven Royal Electric Line. Prove it for yourself . . . write us today!

ROYAL



ROYAL ELECTRIC CORPORATION
PAWTUCKET • RHODE ISLAND
Manufacturers of WIRE • CORD SETS • FUSES • WIRING DEVICES

THE SHORTAGE OF SCIENTISTS AND ENGINEERS:

What Can Be Done About It?

There is no easy or quick way to overcome the shortage of scientists and engineers that has become a threat to our national security and economic progress. The solution can come only through diligent efforts extending over several years to bring the supply of technically trained people into balance with our needs. Meanwhile, the pressure of the shortage can be relieved if industry, government and education make better use of the limited number of scientists and engineers now available.

Earlier editorials in this series have discussed the dimensions of the shortage of technical manpower, its meaning for our national security and our economic well-being and the causes of the shortage. This final editorial will survey some of the measures that can be taken to overcome the shortage. Most of the proposals presented here have been suggested elsewhere. But in combination they appear to offer the best hope of an answer to this serious national problem.

Soviet Methods Not For U. S.

It is clear that no crash program, inspired by panic and designed indiscriminately to drive hordes of high school students into science and engineering, is suitable for the United States. Even if we adopted Soviet methods of channeling a large portion of our brightest young people into technical fields, it would be at least four years before results appeared in the volume of college graduates. And such an approach would do no credit to the American way of life.

Any crash program, whether it involved totalitarian methods or simply overselling the advantages of technical careers, would be objectionable for other reasons as well. It would jeopardize the quality of scientific and engineering training. It would put many young people in fields where they have little aptitude and deny them to other fields for which they are better equipped. And, if carried too far, it might even result in the overcrowding that was feared prematurely a few years ago.

The most important problems for the long run, as the preceding editorial in this series indicated, are in the area of education. Any real solution must reduce the loss of talented high school graduates who do not continue their education for financial reasons or because of lack of interest. Also, it must improve the quality of high school preparation in science and mathematics and, above all, relieve the critical shortage of teachers.

Basic Needs in Education

Substantial increases in salaries of teachers in most of the nation's school systems are essential if high school students are to receive adequate preparation for courses in science and engineering. Pay scales that have lagged behind rising living costs and salaries available in industry have placed great strain on even the most devoted teachers. There has been a sharp drop in the number of new graduates trained to teach science and mathematics, and of this smaller number many have decided not to follow careers in teaching.

Raising teachers' salaries to more realistic levels must be primarily the job of local school districts, aided by state governments. If, in face of rapid increases in school enrollments, local and state resources prove insufficient, then federal aid will have to be considered. Higher teachers' salaries, however financed, inevitably mean higher taxes. But without appreciable improvement soon, the quality of our entire educational system is in danger.

At the college level also, financial aid is needed to provide scholarships for promising students and to increase faculty salaries. (An earlier series of editorials dealt more fully with these problems, and business aid to higher educational institutions has been mounting at a gratifying rate.)

But not all the educational problems related to the shortage of scientists and engineers can be solved with money. Science and mathematics have steadily been de-emphasized as more youngsters have gone to high school for terminal education rather

How business is helping to relieve the shortage of technical manpower

Summary of a Survey by McGraw-Hill Correspondents

Sponsoring summer study programs for high school teachers
Arranging cooperative work-and-study programs for students
Sponsoring college fellowships and scholarships in science and engineering
Paying tuition of employees taking science and engineering courses
Keeping college faculties abreast of new developments in industry
Hiring high school science teachers for summer and part-time work
Giving old, but usable, laboratory equipment to schools
Cooperating in high school science exhibits
Sponsoring regional science fairs
Sending speakers and training aids to schools
Opening plants for student tours
Analyzing jobs to relieve engineers and scientists of routine work

The McGraw-Hill Department of Economics will be glad to hear of any other ways business is helping relieve the shortage.

than for college preparation. This de-emphasis must be reversed.

Techniques of instruction, furthermore, can stand improvement at all levels of education. Professor E. P. Northrup of the University of Chicago observes: "In the past fifty years . . . there has been a revolutionary change in the character of mathematics, yet not a trace of this change is to be found in the curricula of all but a handful of secondary schools throughout the country." Colleges and universities may have to examine old fetishes about light teaching loads and small classes in order to make more efficient use of their faculties.

What Industry Can Do

Industry has the immediate problem of better utilization of available technical manpower and the long-range responsibility of helping increase our resources of trained people. Frantic recruiting practices and reckless bidding up of starting salaries—financed largely by government money for defense orders — are not the answer. There is need for earnest consideration of incentives for experienced scientists and engineers, who too often must look to sales or executive positions for adequate financial recognition.

Industry in many instances could make more efficient use of engineers and scientists by shifting work to technicians, clerical personnel and even machines. One company found that 15% of the time of an engineering design group was spent on routine jobs and that this valuable time could be saved by adding a technician and a clerical worker to the group.

Other potential sources of technical manpower could be tapped more extensively to relieve the shortage. Very few women have entered what has been traditionally a man's world. Negroes are only slowly gaining educational and employment opportunities in technical fields. And many experienced older men can still give useful service.

A Good Beginning

Much is being accomplished already in efforts to attract more young people into scientific and engineering careers. A summary of some of the things business is doing is presented above. Other notable contributions are being made by such organizations as the professional engineering and scientific societies (especially through their manpower commissions), the National Science Foundation, the National Research Council, the National Education Association, the National Merit Scholarship Foundation and the Thomas Alva Edison Foundation.

Results are beginning to appear in rising enrollments in engineering schools and technical institutes. Between 1951 and last year, according to McGraw-Hill's annual survey of technical institutes, enrollments in these schools rose from 46,000 to a record 67,000. Engineering enrollments rose in the same period from 166,000 to 243,000. A rising tide of graduates is already being made available to American industry.

This is a good beginning. But only with wider appreciation of the serious implications of the shortage of scientists and engineers and intensified efforts on the part of business, government and education to relieve the shortage can we hope to overcome this threat to our national security and economic well-being.

This is one of a series of editorials prepared by the McGraw-Hill Department of Economics to help increase public knowledge and understanding of important nationwide developments of particular concern to the business and professional community served by our industrial and technical publications.

Permission is freely extended to newspapers, groups or individuals to quote or reprint all or parts of the text.

Donald C McGraw

PRESIDENT

McGRAW-HILL PUBLISHING COMPANY, INC.

This G-E development engineer is testing a ballast design for a new fluorescent application. He's a member of the largest ballast development group in the industry. The fundamental research which they perform is one important reason why G.E. is the leading supplier of fluorescent ballasts.

Flora shows you how . . .*

General Electric Ballast Design Leadership Helps You Save Lighting Dollars

General Electric's design leadership has contributed greatly to the vast fund of knowledge now available and being used by the entire ballast industry.

A recognized pioneer in ballast design, G.E. has led in these important developments: Tulamp lead-lag, certified series 96T12, trigger start, rapid start, clamped core, plastic sign, and dimming ballasts. G.E. emphasizes product leadership to provide the best ballast value to the user. We have never resorted to the temptation of lowering product quality to gain competitive advantage. Instead, we furnish only the best ballasts to assure economical fluorescent lighting. We're convinced there is no substitute for satisfactory performance.

To be sure of top quality ballasts with the latest design developments, look to the leader . . . General Electric!

The next time you specify equipment for a fluorescent lighting installation, make sure you get the best . . . specify General Electric ballasts.

A G-E ballast tag or sticker on your fixture is proof that it's equipped with the best in ballast value. It's the only way to be certain. For further information on G-E ballasts, write Section 401-15, General Electric Co., Schenectady 5, New York.

*Miss Fluorescent Ballast, G. E.'s Ballast Mascot

Copyright 1955, General Electric Company

USER SATISFACTION gets foremost consideration by G-E ballast development engineers. Here a ballast is being checked to make sure it will provide optimum light output and lamp life.

Five more reasons why

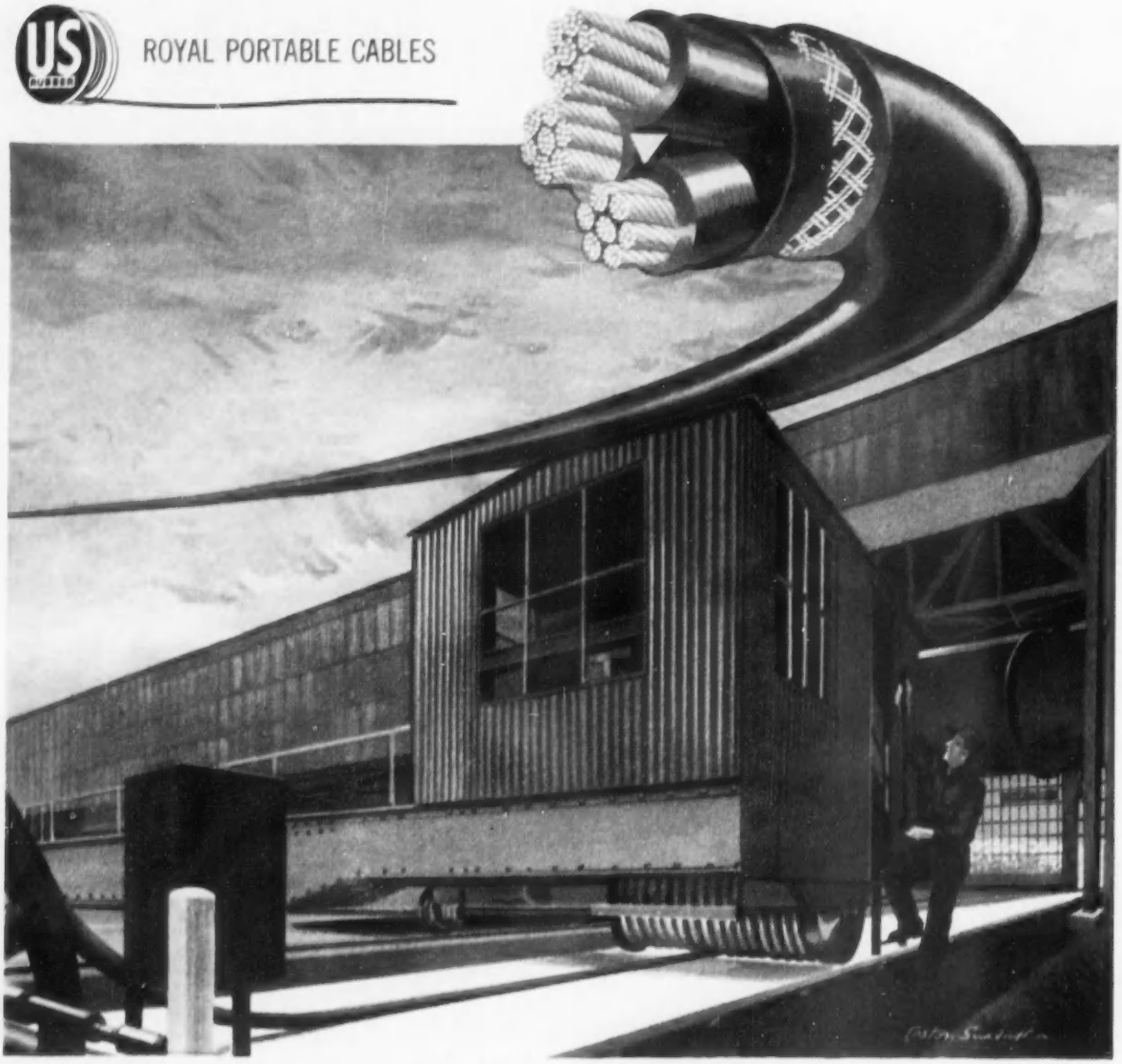
GENERAL ELECTRIC IS YOUR BEST BALLAST VALUE

- EXCLUSIVE SOUND RATING SYSTEM
- SUPERIOR QUALITY CONTROL
- LONGER BALLAST LIFE
- PRECISE LAMP-MATCHED DESIGN
- COMPLETE CUSTOMER SERVICES

Progress Is Our Most Important Product

GENERAL ELECTRIC

ROYAL PORTABLE CABLES



Still in Service after 29 years, 24 hours a day

and without a single splice, patch or power failure!

This amazing record was made by a 175-foot length of U. S. Royal portable cable installed in 1927 as a source of power for a traveling agitator in a cement plant*. This three-conductor cable has been fully exposed to weather for the entire 29 years. The agitator moves back and forth the length of the slurry basin, and the cable is simultaneously taken up and paid out by a revolving drum.

To "U. S." engineers, performances such as this are not too unusual. They stem, right at the start, from the determination of "U. S." technicians to produce only a *quality* product. This is possible because "U. S." is the only wire manufacturer to grow its own natural rubber, make its own synthetic rubber and its own plastics, assuring complete quality control with the help of unmatched research and manufacturing facilities.

Call on your "U. S." electrical wire and cable representative for any of your wiring needs, or write United States Rubber, Rockefeller Center, New York 20, N. Y.

*Penn-Dixie Cement Corp., Tenn.

Watch NCAA football, Saturday afternoons, NBC-TV

Electrical Wire & Cable Department

United States Rubber

1954 Census of Business

Sales Up 47% Over 1948

- Electrical, electronic, appliance distributors report $6.3 billion in sales for 1954.
- Industry shows eightfold rise since 1929 Census, Commerce Department data reveals.

THE LATEST full-scale portrait of the electrical wholesaling industry shows a still-growing "giant" standing astride a substantial inventory and lugging bulging order books and cash boxes under each arm.

That "portrait" is painted with the preliminary figures just released on the 1954 Census of Business conducted by the U. S. Department of Commerce. It refers specifically to "electrical, electronics and appliance distributors" as a total group, later breaking down this group into subdivisions.

Throughout the continental United States, Alaska and Hawaii, there were 7,123 establishments classified in this trade in 1954. Their sales totaled $6.3 billion—up 47 per cent over 1948. How much of this increase is due to strengthened sales effort by distributors and how much to price increases posted by manufacturers is not available from the Census figures, since dollar volume sales do not tell the complete story for the inflationary period of 1948-54.

• **Industry Growth**—However, to realize the gigantic growth of electrical distribution, it is necessary only to note that sales in this trade, dollarwise, have increased eightfold in the 25 years since the first such Census. The figures: 1929—$847 million; 1954—$6.3 billion.

Also, in 1954 the trade provided employment for 108,238 persons on a payroll basis at an annual payroll of $495 million or 7.8 per cent of sales. In addition to paid employees, 3,061 owners of unincorporated firms were engaged in the business, making a total of 111,299 persons. Of this number 25,506 were engaged in selling.

Operating expenses of electrical, electronics and appliance distributors amounted to $890 million for the year 1954, or 14 per cent of sales. Inventories and merchandise on hand for sale at the end of the year were valued (at cost) at $726 million.

• **Three Groups**—Electrical, electronics, appliance distributors are divided, for Census purposes, into three broad groups: (1) electrical apparatus, supplies distributors; (2) electrical appliance, radio, TV set wholesalers; and (3) electronic parts, equipment distributors.

Following is a profile sketch of the most numerous group, and most important from the standpoint of EW readers: the **electrical apparatus, supplies distributors.**

For 1954, there were 3,159 establishments in this group; with sales of $2,910,458,000; with inventories, end of year, at cost, of $336,653,000; operating expenses, including payroll, of $395,787,000; a payroll for the entire year of $227,777,000; and paid employees totalling 50,118.

A quick look at the comparable figures for 1948 shows the following: 2,698 establishments in this group; doing $2,278,809,000 in sales; with inventories, end of year, at cost, of $277,542,000; operating expenses including payroll of $287,208,000; payroll for entire year of $170,341,000,- and number of paid employees totalling 48,454.

• **Gains**—Comparison figures for the two years—and percentage gains 1954 over1948—show some revealing facts. From 1948 to 1954 the number of establishments increased by 461 or 17 per cent. During the period total sales volume increased by $631,649,000 which equals a gain of 27 per cent over 1948. At the same time the gain in end-of-year inventories, at cost, was $59,111,000 or 21 per cent of the 1948 figure. These figures would seem to be in line with the economic growth of the country and wholesaling generally.

Continued on page 97

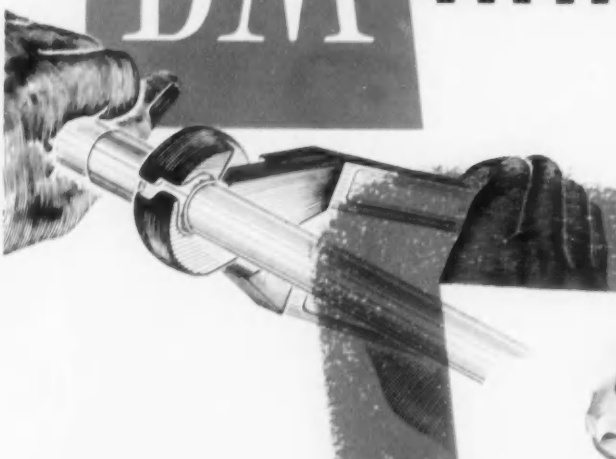
A QUICK PICTURE OF THE CENSUS – BY REGIONS*

Region	Establishments (Number)	Sales ($1,000)	Inventories -end of year- at cost ($1,000)	Operating expenses (including payroll) ($1,000)	Payroll (entire year) ($1,000)	Paid Employees (Number)
NEW ENGLAND	243	154,844	19,892	22,229	12,550	2,975
MIDDLE ATLANTIC	909	656,310	71,428	97,801	55,716	12,179
EAST NORTH CENTRAL	601	658,282	74,604	92,791	54,266	11,226
WEST NORTH CENTRAL	232	251,726	31,625	33,833	19,841	4,371
SOUTH ATLANTIC	355	336,565	41,197	41,250	23,434	5,713
EAST SOUTH CENTRAL	114	125,356	14,858	14,612	8,057	1,853
WEST SOUTH CENTRAL	250	248,894	32,260	30,382	17,461	4,081
MOUNTAIN	95	90,703	9,994	10,153	5,830	1,327
PACIFIC	360	387,778	40,795	52,736	30,622	6,393
U. S. TOTALS	3,159	2,910,458	336,653	395,787	227,777	50,118

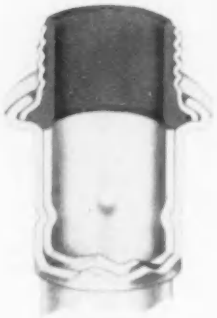
* Includes only electrical apparatus, supplies distributors.

B-M INDENTER TYPE FITTINGS

FOR E.M.T.
Concrete-tight



Red Throat
Insulated Connector



Red Throat
Cross section

Briegel, the Original Indenter Fittings are neater in appearance, easier and faster to use. Installation is simple and less expensive. Two quick squeezes sets them forever. Try B-M Indenter Fittings and get more profits from each job.

All B-M Indenter Fittings are U.L. Approved as concrete-tight and for general use (File Card E10863). Also comply With Federal Specifications W-F-406.

BRIEGEL METHOD TOOL CO.
GALVA • ILLINOIS

Warehouse Stocks in Principal Cities for Immediate Delivery!

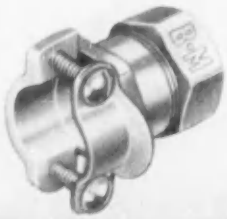
B-M COMPRESSION TYPE FITTINGS
FOR E.M.T. Rain-tight

SIZES FROM ½" to 2"

SIZES FROM ½" to 2"

SIZES ½" ¾" 1"

SIZES ½" ¾" 1" 1¼"



SIZE ½"

BRIEGEL METHOD TOOL CO.
GALVA • ILLINOIS

CHUCKLE OF THE MONTH

"And here's the real secret of our success—top-notch estimating!"

Census of Business (cont.)

Also, it can be shown that the total dollar volume of sales in 1948 averaged $844,628 per wholesale establishment; by 1954 that average was $921,322—a gain of $76,694.

• **Expenses**—Looking further, it appears that the total operating expenses of the group increased $108,579,000 or 37 per cent from 1948 to 1954. The payroll increase was $57,436,000 or 33 per cent for the same period—this despite the fact that net gain in number of paid employees was only 1,664 or 3 per cent over 1948.

Data for the two other years in which Census of Business reports were compiled have also been summarized in the current report. The number of establishments engaged in distributing electrical apparatus and supplies grew from 1,296 to 1,617 between 1929 and 1939. Sales remained nearly constant: $451,018,000 in 1929 as against $451,329,000 in 1939. Inventories, end of year, at cost, declined from $51,611,000 in 1929 to $47,075,000 in 1939. Yearly operating expenses likewise were pared during the depression decade from $76,176,000 to $67,904,000. The industry's yearly payroll slipped from $40,001,000 to $38,785,000, while the number of paid employees edged up from 19,526 to 20,529.

Compared with an eightfold sales increase for the industry overall between 1929 and 1954, electrical apparatus, supplies distributors increased their volume six times.

• **Regional Picture**—A geographic analysis (*see chart on page 95*) of the electrical apparatus, supplies distributing trade shows up differences in the dollar volume done per distributor in various regions; i.e., the Middle Atlantic region includes the most distributors numerically (909) but ranks second in dollar volume to the East North Central region with one-third fewer distributors (601). Other comparisons may be made directly from the chart.

For further information on this topic, and for definition of terms involved in this report, EW readers are referred to the pamphlet on "Electrical, Electronics, Appliance Distributors," series PW-3-29, for the wholesale trade, 1954 Census of Business preliminary trade report. It is available from the Bureau of the Census, Washington 25, D. C., and from U.S. Department of Commerce field offices. The price is 10 cents.

WHAT'S HAPPENING IN WASHINGTON

- **Small Business Loans to Rise**—Look for a big step-up in government loans to small business. This is what's behind it: Ike's closest economic advisers argue that tight money policies are hurting small business badly. They concede that tight money is here to stay for some time, that it's needed to check inflation while long-range heavy capital expansion is under way.

  Their first idea is to ladle out more small business loans. Already, SBA has made more than twice the loans in the first half of 1956 than in the same period last year. Now it's started to merchandise its lending program even more, is playing up its fund of $50 million available for small firms. Some critics inside the Administration ask how Washington can keep tight money on one hand while pouring out loans on the other. Ike's advisers answer that funds involved in small business aid are peanuts—only in the millions—compared to the economy in general.

  Small firms—producers as well as distributors—will be in on the stepped-up lending program.

- **Urge Mortgage Credit Easing**—Home builders are still pessimistic over new housing starts next year despite the new government relaxations of financing controls.

  A national meeting of home builders in Washington last month, after conferring with government fiscal experts and officials, predicted that 1957 starts will drop as low as 800,000 units if present tight money policies are continued. The builders were urging government people to ease mortgage credit.

  What the government has done so far is to lift restrictions on money banks can borrow for lending purposes, make it easier to sell mortgages to Federal National Mortgage Administration, boost "Fannie Mae" commitments, reduce down payments on FHA-insured homes, lower "Fannie Mae" discounts. Most builders, however, feel these moves are more an election-year tip of the hat to the need for more low-cost housing than steps which will boost building.

- **Tax Writeoff Stimulant Postponed**—Basic producers of steel and other market-tight materials can't look to new fast tax writeoffs to encourage production. At least until next year, when the military services come up with new military procurement requirement figures.

  The steel industry wants tax aid for new construction materials capacity, oil field equipment and the like. But Defense Mobilization Director Arthur Flemming has finally decided that no new expansion goals will be considered, for the time being. And the Administration has temporarily junked its overall look at new goals covering the whole mobilization base. This means that wholesalers and jobbers won't be getting as much new business as a tax stimulant to an expansion of basic production would create for them.

- **Lease Purchase Progress**—Contracts for construction of public buildings under lease agreements are accumulating. Business for suppliers should begin to show up in some $200 million worth of projects in 20 states within a few months. Right now, architect-engineer contracts are being negotiated. Following will be bid offerings to contractors for building of Federal courthouses, post-offices and the like. Those are the bids to keep track of in your area for subcontracting of electrical fixtures, etc.

  The lease purchase program is designed to get new federal buildings on a long-term payment basis.

APPLETON'S new®

expandable Bar Hangers and Bar Sets

2-piece stud travels length of bar hanger tightens box in correct position for your job.

patent applied for

3 EXCLUSIVE FEATURES

Concealed "nail" prongs eliminate possibility of injury . . . grab studding quickly . . . hold firmly until you finally position box!

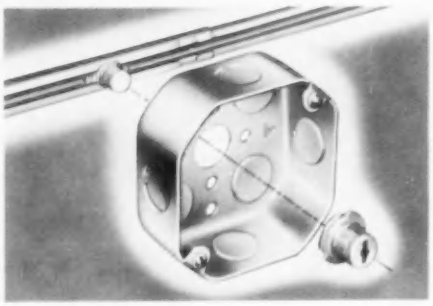
Positive 2-piece stud. Box stud engages bar stud in seconds . . . more wiring room!

Center safety-lock designed to hold arms together even if subjected to stresses beyond U/L requirements!

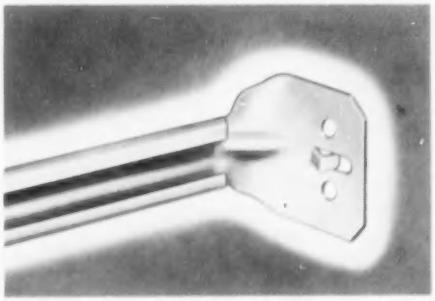
See Other Side

APPLETON Expandable Bar Hangers and Bar Sets are Quality Engineered for Lasting Performance!

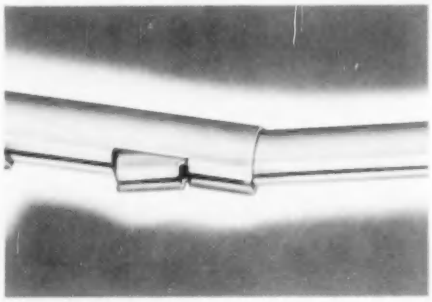
■ 2 models fit space between joists for studding! All parts are tough, heavy gauge steel for maximum application life. The simple 2-piece stud gives you even more wiring room and all units meet or exceed U/L requirements. From any angle, the cost and time saving features built into this new APPLETON Bar Hanger and Bar Set make them an outstanding buy . . . Another example of APPLETON's continuing program of market research to give you the finest and most efficient products in the electrical field.



See the amazingly simple and yet super-tight method of fastening the outlet box to the bar hanger with the New APPLETON 2-piece Hanger Stud! Simply slip the bar stud through box knockout and engage box stud. Two quick steps that mean no more fumbling during awkward ceiling work. Another exclusive feature to save time and money!



This enlargement shows the actual construction of the metal positioning "nail" concealed on the ends of all APPLETON Expandable Bar Hangers. These sturdy metal prongs bite into the studding with a light hammer blow . . . . giving temporary support until the bar hanger is fixed into permanent position with regular nails. Because these prongs are concealed, cuts and annoying scratches are reduced to a minimum. This exclusive APPLETON feature saves time and reduces installation costs!



An extra safety feature exclusive with the APPLETON Bar Hanger and Bar Sets is shown in this enlarged photo. A sturdy hook type flange prevents the 2 metal arms of the APPLETON Expandable Bar Hanger from pulling apart under pressure exceeding U/L requirements. Think of the convenience in overhead installation.

EXPANDABLE BAR HANGERS

Catalog Number	Length Of Hanger		Used Between Joists Which Are On Centers Of:	Std. Pkge.	Wt. Per 100
	Min.	Max.			
SX-115	11½"	18½"	14"-16"-18"-20"	50	41 lbs.
SX-160	16"	26½"	18"-20"-22"-24"-26"	50	52 lbs.

EXPANDABLE BAR SETS

Catalog Number	Catalog Numbers Used To Make Bar Sets		Used Between Joists Which Are On Centers Of:	Std. Pkge.	Wt. Per 100
	BOX	BAR			
SX-115-40½	40½	SX-115	14"-16"-18"-20"	25	93 lbs.
SX-115-560L	560L	SX-115		25	95 lbs.
SX-115-561L	561L	SX-115		25	102 lbs.
SX-115-551L	551L	SX-115		25	111 lbs.

Sold Exclusively Through Selected Wholesalers

APPLETON ELECTRIC PRODUCTS ®

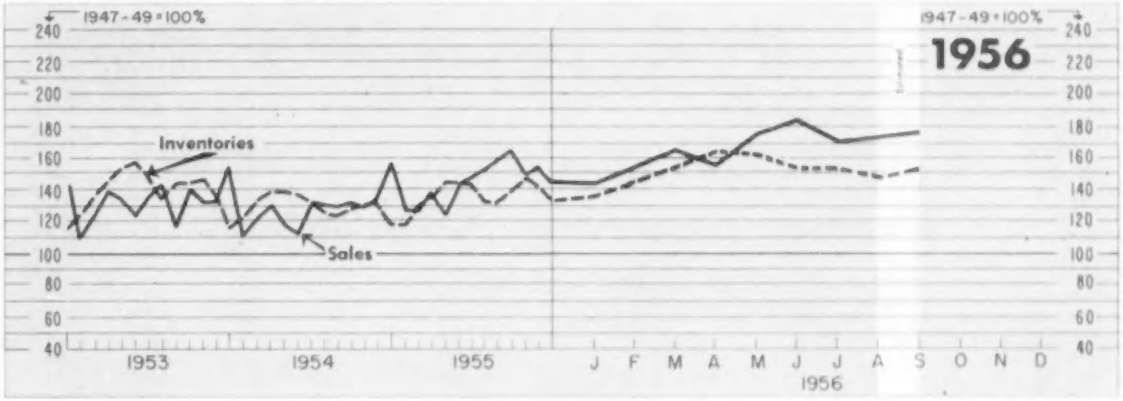
APPLETON ELECTRIC COMPANY
1717 Wellington Avenue • Chicago 13, Ill.

Today, More Than Ever...
*"**APPLETON** ... the Standard for Better Wiring"* ®

Printed in U.S.A.

BUSINESS INDEX for August 1956*

NATIONAL PICTURE:



	INDEX					% CHANGE
	Aug. 1956	*July 1956*	*Aug. 1955*	*Aug. 1954*	*Aug. 1953*	*1956 from 1955*
Sales	172	170	158	130	118	+19
Inventory	148	154	132	124	145	——

REGIONAL PICTURE:

	SALES (% Change)			INVENTORY (% Change)	
	From July 1956	*From Aug. 1955*	*1956 from 1955***	*From July 1956*	*From Aug. 1955*
NEW ENGLAND	−2	+18	+28	−1	+33
MIDDLE ATLANTIC	+4	+12	+25	−4	+14
EAST NORTH CENTRAL	0	−2	+14	+1	+23
WEST NORTH CENTRAL	−4	−9	+13	−9	+13
SOUTH ATLANTIC	+5	+8	+16	−2	+17
EAST SOUTH CENTRAL	0	+16	+17	−10	+22
WEST SOUTH CENTRAL	+9	+40	+21	+3	+36
MOUNTAIN	+30	+30	+13	−1	+3
PACIFIC	+2	+13	+18	−4	+19

***SOURCE:** Bureau of the Census. September projection is by this publication. **8 months 1956 from 8 months 1955

WHOLESALE PRICE INDEX

Product (1947-49=100)	Sept. 1956	Aug. 1956	% Change	Sept. 1955	% Change
1. Copper Wire, bare	172.8	172.8	0.0	168.4	2.6
2. Building Wire, type RH-RW	148.6	156.3	—4.9	147.1	1.0
3. Non-metallic Sheathed Cable	102.1	112.9	—9.6	107.1	—4.7
4. Varnished Cambric Cable	168.5	168.5	0.0	170.4	—1.1
5. Flexible Cord type SJ	148.8	150.2	—0.9	132.7	12.1
6. Lighting Panelboard, fuse type	126.1	124.0	1.7	127.0	—0.7
7. Lighting Panelboard, circuit breaker type	136.1	132.8	2.5	134.7	1.0
8. Safety Switch, 2 pole, type A, 250-volts	165.5	159.6	3.7	157.8	4.9
9. Safety Switch, 3 pole, type C, 575 volts	169.0	162.7	3.9	154.2	9.6
10. Air circuit breaker, 250 volts	170.8	166.4	2.6	142.3	20.0
11. Power Panel, fuse type, 250 volts	141.6	137.4	3.1	132.3	7.0
12. Power Panel, circuit breaker type	145.1	143.2	1.3	140.3	3.4
13. Motor Control, a.c., 25-30 hp., 400-440 volts, combination starting switch	160.9	160.9	0.0	157.7	2.0
14. Motor Control a.c., 25-30 hp., 220 volts	151.8	151.8	0.0	148.4	2.3
15. Motor Control, a.c., 50 hp., 440 volts	176.9	176.9	0.0	156.0	13.4
16. Motor Control, a.c., 75 hp., 440 volts	152.6	152.6	0.0	149.3	2.2
17. Motor Control, d.c., 110 hp., 239 volts	179.0	179.0	0.0	165.4	8.2
18. Renewable Cartridge Fuse, 250 volts	126.0	126.0	0.0	115.7	8.9
19. Non-renewable Cartridge Fuse, 600 volts	127.9	127.9	0.0	121.4	5.4
20. Plug Fuse, 125 volts, non-renewable	111.4	111.4	0.0	109.5	1.7
21. Motor, d.c., 1/6 hp., 115 volts	158.2	158.2	0.0	141.4	11.9
22. Motor, a.c., 1/4 hp., 110-115 volts	105.4	105.4	0.0	107.2	—1.7
23. Motor, a.c., 1/2 hp., 220-240 volts	111.8	111.8	0.0	109.6	2.0
24. Motor, a.c., polyphase, induction, 3 hp., open sleeves bearing	134.3	134.3	0.0	125.9	6.7
25. Motor, a.c., polyphase, induction, 3 hp., ball bearing	136.8	134.6	1.6	128.9	6.1
26. Motor, a.c., polyphase, induction, 10 hp., open sleeve bearing	159.6	145.8	9.5	134.8	18.4
27. Motor, a.c., polyphase, induction, 10 hp., ball bearing	148.3	143.9	3.1	133.2	11.3
28. Motor, d.c., 5 hp.	180.3	176.2	2.3	163.7	10.5
29. Fan, under 12 inches	112.4	112.4	0.0	113.0	—0.5
30. Fan, propeller type, 24-30 in. wheel diameter, direct connected	166.4	166.4	0.0	152.0	9.5
31. Drill, production line, 1/4 in.	120.9	120.9	0.0	121.5	—0.5
32. Drill, production line, 1/2 in.	116.3	116.3	0.0	114.3	1.8
33. Saw, production line, 6-8 in.	103.1	103.1	0.0	100.6	2.5
34. Pliers, 6-in., long nose	186.0	186.0	0.0	171.9	8.2
35. Lamp, 60-watt, 110, 115, 120 and 125 volts, Inside-frosted	145.0	145.0	0.0	147.2	1.5
36. Distribution Transformer, 15 kva.	137.1	130.5	5.1	130.5	5.1
37. Distribution Transformer, 45-50 kva.	128.2	122.4	4.7	122.4	4.7
38. Dry Type Transformer, 15 kva.	136.8	136.8	0.0	122.9	11.3
39. Dry Cell Battery, flashlight, type D	149.3	149.3	0.0	149.3	0.0
40. Dry Cell Battery, portable radio "B" pack 67 1/2 volts	136.4	136.4	0.0	123.4	10.5
41. Dry Cell Battery, general purpose, No. 6 type 1 1/2 volts	152.3	152.3	0.0	144.2	5.6
42. Voltmeter, portable type, 3 1/2-6 1/2 inches, 0-300 volts	185.0	185.0	0.0	165.8	11.6
43. Ammeter, portable type, 4-6 1/2 inches	179.8	179.8	0.0	158.6	13.4
44. Watt-meter, for instrument transformer, 100-150 volts	160.5	160.5	0.0	139.7	14.9
45. Toaster, automatic, "pop-up"	90.3	90.3	0.0	104.4	—13.5
46. Iron, under 4 pounds	95.5	95.5	0.0	104.6	—8.7
47. Cooking range, standard size	103.3	102.4	0.9	100.6	2.7
48. Washing Machine, non-automatic, wringer type	109.7	109.7	0.0	108.4	1.2
49. Washing Machine, automatic	103.8	103.8	0.0	99.9	3.9
50. Ironer, table model	119.7	117.4	2.0	114.3	4.7
51. Ironer, portable model	113.8	113.8	0.0	111.3	2.3
52. Vacuum Cleaner, upright	108.5	107.4	1.0	107.7	0.7
53. Vacuum Cleaner, tank	97.4	97.4	0.0	102.5	—5.0
54. Refrigerator, capacity 7.4-9.5 cubic feet and over	98.5	97.9	0.6	97.7	0.8
55. Home Freezer Chest, 8-12.4 cubic feet	98.0	95.8	2.3	98.9	—0.9
56. Water Heater, 52 gallon tank, 230 volts a.c.	101.1	101.1	0.0	106.4	—5.0
57. Radio, table model	90.3	90.3	0.0	85.0	6.2
58. Hi-Fi Phonograph, console	99.9	99.9	0.0	N.A.	N.A.
59. Radio, portable model	91.3	91.3	0.0	89.4	2.1
60. Television, table model	68.6	67.3	1.9	68.2	0.6
61. Television, console model	70.4	70.5	—0.1	69.4	1.4
62. Radio-television-phonograph combination	76.9	75.9	1.3	75.6	1.7

All % changes are increases. Decreases are indicated by minus sign.

Source: *Bureau of Labor Statistics*

CRESCENT

OVER 70 YEARS EXPERIENCE

INTERLOCKED ARMOR POWER CABLE

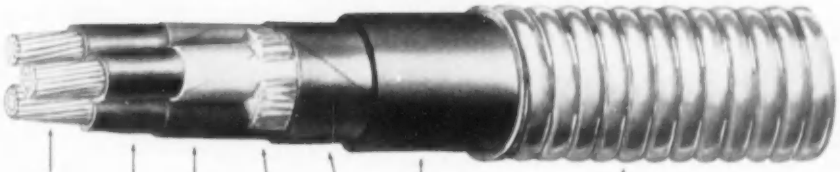
Can Be Easily and Quickly Installed . . . Saving Both Time and Money

Crescent Interlocked Armor Cable with ALUMINUM or GALVANIZED STEEL ARMOR provides a flexible metal-enclosed method of wiring for power. Speed and economy of installation are the principal advantages of these cables since they can be placed on easily hung racks or attached to building surfaces. Maximum current carrying capacity is secured by the use of the varnished cambric insulation. For outdoor or damp location installation, it is furnished with SYNTHOL IMPERVIOUS SHEATH between the insulated conductors and armor, as illustrated below.

INTERLOCKED ARMOR CABLE

WITH IMPERVIOUS JACKET

Three Conductor-VARNISHED CAMBRIC INSULATED-0-5000 Volts

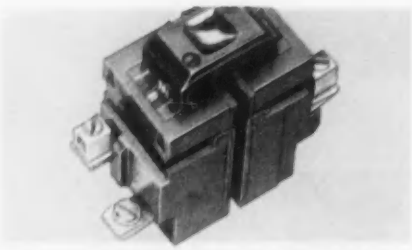


The Varnished Cambric insulated conductors are thoroughly protected by the Impervious Sheath of tough thermoplastic which is highly resistant to moisture, alkalies, acids and oils. This cable shows attractive savings when strung from messenger cable or in troughs outdoors as between buildings.

WRITE FOR BULLETIN

CRESCENT INSULATED WIRE & CABLE CO.

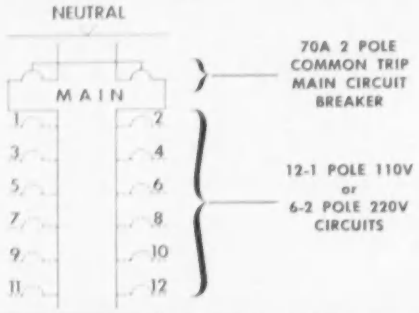
TRENTON 5, NEW JERSEY

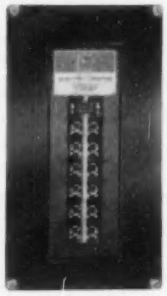


3 NEW ELECTRI-CENTERS®
WITH
70 AMP PUSHMATIC® MAIN DISCONNECTS

PUSH-BUTTON CONVENIENCE
PUSHMATIC PROTECTION
FACTORY INSTALLED

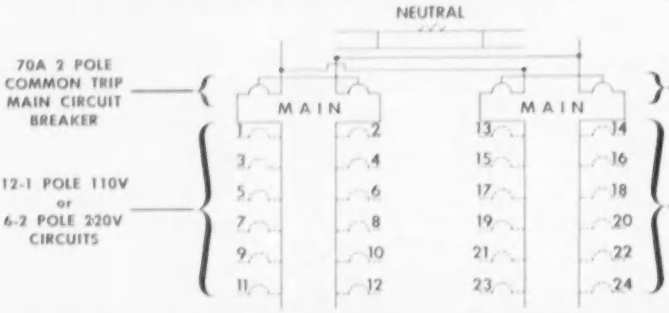
70 AMPERE SERVICE — 100 AMP MAIN LUG CAPACITY

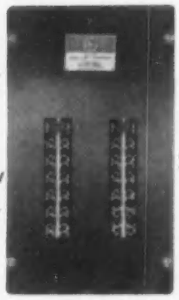




CAT. NO. 12-70-PM

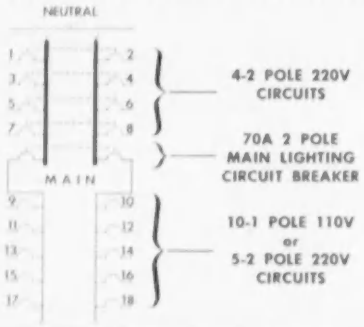
140 AMPERE SERVICE — 200 AMP MAIN LUG CAPACITY

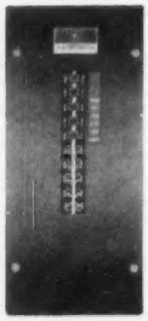




CAT. NO. 24-270-2PM

200 AMPERE SERVICE — 200 AMP MAIN LUG CAPACITY





CAT. NO. X410-270
(SPLIT-BUS)

IF IT'S NEW . . . IF IT'S DIFFERENT . . . IF IT'S BETTER . . . IT'S

BULLDOG

ELECTRIC PRODUCTS COMPANY
A Division of I-T-E Circuit Breaker Company

Export Division: 13 East 40th Street, New York 16, N. Y. • *In Canada:* BullDog Electric Products Co. (Canada) Ltd., 80 Clayson Road, Toronto 15, Ont.

Business Machines Do Electrical Estimating

"Estimatic"—or electrical estimating by automatic data processing machines—is said to be the first major change in electrical estimating practice since the introduction of labor units more than 30 years ago.

The new method was developed during three years of effort by Ralph E. Johnson, president of Sturgeon Electric Co., Inc., Denver, Colo., and his associates. It cuts estimating time by 50 to 70 per cent and relieves estimators of most of the paper and figure work commonly associated with accurate estimating.

• **How It Works** — The estimator proceeds normally through the plan and specification study, layout, notes and preparation for take-off. Take-off resembles conventional practice, but the Estimatic estimator lists standard operations based upon installation standards set forth in a large manual. Each of these installation standards is identified by a code number. A standard may contain only one or as many as 18 different products in the assembly. The resulting take-off sheet will show quantities of each assembly represented by a 10 digit code number.

From here on machine data processing takes over. An operator copies the take-off on a keyboard. Each item is typed and punched into a card; the complete take-off becomes a stack of punched cards. Handled through several automatic machines, the take-off rolls out of a printing tabulator, is priced, extended, totalled and summarized.

The stack of cards are processed again by a different automatic routine. This time, a complete bill of materials rolls off the tabulator.

• **Speed**—To process by machine a fair sized school job may take 15 minutes; a complex industrial job may take half an hour from take-off to completed summary.

Speed also poses a problem in operation of the Estimatic system. Johnson's estimators can provide only a fraction of the load which the machines can handle. Consequently, Johnson is inviting other electrical contractors to use the Estimatic service. He will lease the data books and will process take-offs by mail. He is also exploring the possibilities of using teletype, facsimile and other wire service forms.

Significance to you: This "breakthrough" in electrical estimating practice spotlights a key problem in construction generally, but more acute in electrical work because of its rapid advances in technology. Estimating is a highly responsible and exacting task. Men with the basic qualifications are scarce and training takes a long time. This automatic machine estimating method, if widely used, would increase the capabilities of existing personnel. Also a review of the long range aspects of estimating particularly its use in competitive bidding might well be in order.

These items were digested from a recent issue of Electrical Construction and Maintenance, a McGraw-Hill publication. Their purpose: to alert you to developments and trends reported in the operation of two of your biggest customers—electrical contractors and plant electrical men.

Heating for Research With Electricity

A last-minute switch to radiant glass panel heating during construction of a new laboratory and office building for the York Research Corp., Stamford, Conn., has brought extra comfort to research workers, and provided original economies that help offset the higher heating costs of electricity.

Half-way through construction, the firm's management was sold on the prospects of eliminating the planned oil-fired burner and associated equipment. The necessary electrical branch circuits were added to the building plan.

• **All Electric**—Heater circuits were installed in rigid concrete beneath the floor slab of the one-story building from two circuit breaker panels. One contains 10 circuits for the laboratory, supply room, controlled temperature room and washrooms; the other supplies eight circuits for the office areas.

Lab heaters are surface-mounted on walls above work areas. Private offices each have two baseboard heaters rated at 750-w.

All offices and partitioned rooms have individual thermostat control; the general laboratory has a thermostat for each of its six bays. This feature permits workers in each bay to control their own settings—has eliminated considerable complaints.

• **Benefits**—Other savings cited which offset the high heating cost: (1) special industrial insurance policy with an annual premium of $200 needed to cover

Continued on page 106

show 'em this plier...

and YOU'LL SELL IT

A sale is in the making every time your customers "heft" a Channellock 420 plier. The reason? No other plier does so many jobs so well. It grips any shape . . . of any size (⅝" thru 1¾") . . . with a grip like a pipe wrench. This all 'round usefulness is the reason why more and more householders . . . as well as mechanics . . . want and buy Channellock 420. So make the Channellock line *your* plier line . . . and let the Channellock 420 lead the way to greater profits for you.

CHANNELLOCK *National Advertising* creates customer preference

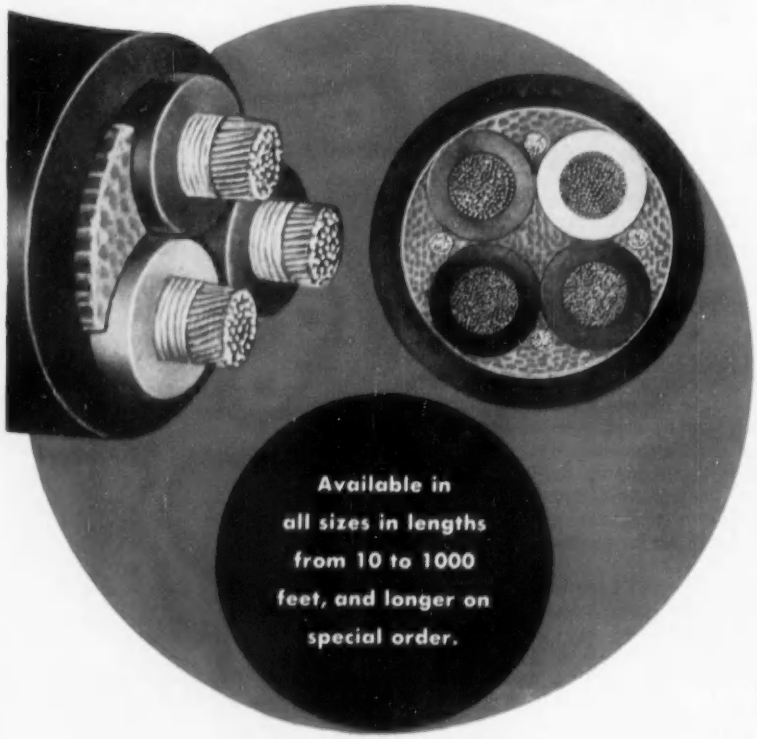
CHAMPION DEARMENT TOOL COMPANY
MEADVILLE PENNSYLVANIA

BIG CABLES

BRONCO

TYPES W & G 66 CERTIFIED

NOW BEING MADE IN SIZES BIGGER THAN 1¾" IN DIAMETER



Write for new FREE catalog:

WESTERN INSULATED WIRE COMPANY

Los Angeles 58, California

fuel-burning system is now unnecessary; (2) $250 per year service and maintenance contract for oil-fired furnace is unneeded; (3) elimination of smokestack in construction plans saved $700; (4) 240-sq ft originally provided for furnace, oil tank, etc. is now being used for supplies and display area. Also, cleanliness of electric heat is an important factor for a laboratory.

The electric heating system performed admirably during the Connecticut flood in the fall of 1955 (EW, Oct. '55, p. 67). For a period of 20 hours the heaters were from 1 to 4-ft under water. The next day the lab was drained and the heaters turned on as cleanup operations began. All heating units worked perfectly; there were no cracked panels and nothing to replace. They aided considerably in drying out walls, floors and equipment.

Special Trucks Speed Contractors' Service

Trucks play a major role in every electrical contractor's operation. Their basic job is the movement of goods. The type of electrical work done and the size of the individual contractor's operation establish the trucking needs for that contractor. If he is a small residential wiring contractor, the goods he has to move from wholesalers' warehouses to his shop and from his shop to his customers' premises will usually be light. But a commercial or industrial wiring contractor generally will have to move much heavier goods.

Today, contractors are selecting from many standard types available; and also are ordering custom designed truck bodies on standard model chassis, and standard design bodies custom-altered to meet specific needs.

- **Quick Jobs**—For example, with a business founded on prompt service, Joe W. Dunn, of Dunn Electric Co., Columbia, S. C., decided he needed mobile service trucks equipped with materials and tools. He designed a special panel body with storage space for materials, tools, work benches. A two-way radio permits continuous contact between mobile unit work crew and main office. Stock bins are replenished at shop every morning.
- **Big Jobs**—Trucks may also be used as project field headquarters, as an office for project supervision, for storage of tools and equipment, etc. Hale Electric Co., Inc., of Pittsburgh, Pa. has equipped a four-ton semi-trailer, which has the following dimensions: body length—20-ft; interior height—6-ft 8-in; interior width—6-ft

Continued on page 120

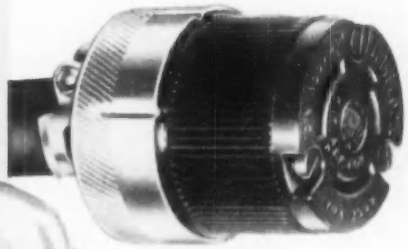
IT PAYS TO HAVE GOOD CONNECTIONS
HUBBELL

Cuts wiring time 1/3!

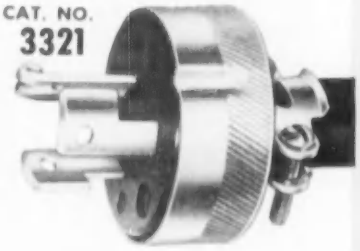
NEW, SUPER

Twist-Lock®

SERIES 3000



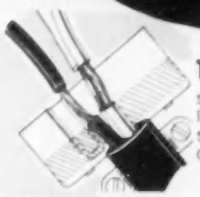
CAT. NO. 3323



CAT. NO. 3321

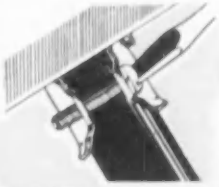
ONE out of every *THREE* valuable wiring seconds *SAVED*, thanks to Hubbell's new screwless *PRESSURE-GRIP* terminals. This exclusive cost-saving and labor-saving idea completely eliminates the conventional "wrap around—screw down" binding post method. Wire ends are simply pressed into their individual pockets and are locked securely when the dead front section is positioned. Tests prove it's the safest, most secure, most foolproof connection there is. Remember, it *PAYS* to have *GOOD CONNECTIONS*. Hubbell connections, that is.

Write for folder



1. Use knurled section on shell as strip gage. Insulation left on wire ends can simplify insertion by containing strands.

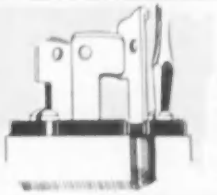
2. Spread cord clamps and insert conductors into holes making sure green (ground) conductor enters hole marked GR.



3. With cord pressed in firmly, tighten cord clamps to maintain position.

4. Judge approximate wire length and snip off excess.

5. Bend each conductor outward into its individual pocket and press firmly into place.



6. Insert dead front into keyed shell and engage the two sections securely by tightening each screw alternately until all are firmly seated.

Harvey Hubbell, INC.

DEPT. D

BRIDGEPORT, CONNECTICUT

Bridgeport 2, Connecticut
State and Bostwick Streets

Chicago 7, Illinois
37 South Sangamon Street

Los Angeles 13, California
103 North Santa Fe Avenue

San Francisco, California
1675 Hudson Avenue

Dallas 7, Texas
1111 Dragon Street

FACTORY WAREHOUSE LOCATIONS ASSURE NATIONWIDE STOCK AVAILABILITY

CONCENTRATE

your tools *and* your SALES with . . .

William E. Simpson of Mykroy, Inc., Wheeling, Ill., shows VACO K7 Kit to Arnold Hoover at Tool Center

New VACO Tool Center Increases Profits, Too

- **Organizes your stock**
- **Steps up your sales**
- **Increases your profits**

Brings versatility, efficiency and showmanship to one concentrated selling area. Occupies only 5 square feet of floor space! Completely self-illuminated back display panel! Large storage compartments with sliding doors! Wrought iron legs! A truly modern merchandiser for modern sales. Placed in your store for practically the cost of the merchandise!

Write at once for complete details!

VACO PRODUCTS COMPANY
317 E. Ontario St., Chicago 11, Ill.
In Canada:
Atlas Radio Corp., Toronto 10

Wholesalers On The Move

- EW survey shows 176 of 1,716 establishments changed addresses during 1954 and 1955.

STATES	Number of Establishments Included	Number That Moved 1954-55	Per Cent That Moved 1954-55
Alabama	28	3	10.7
Arizona	13	0	0
Arkansas	13	4	30.8
California	101	8	7.9
Colorado	17	1	5.9
Connecticut	32	4	12.5
Delaware	7	0	0
District of Columbia	8	1	12.5
Florida	50	7	14.0
Georgia	40	3	7.5
Idaho	6	2	33.3
Illinois	88	6	6.8
Indiana	47	6	12.8
Iowa	37	3	8.1
Kansas	19	3	15.8
Kentucky	27	2	7.4
Louisiana	27	2	7.4
Maine	8	1	12.5
Maryland	20	3	15.0
Massachusetts	60	7	11.7
Michigan	81	6	7.4
Minnesota	28	2	7.1
Mississippi	12	1	8.3
Missouri	41	5	12.2
Montana	5	3	60.0
Nebraska	13	2	15.4
Nevada	6	2	33.3
New Hampshire	5	0	0
New Jersey	68	3	4.4
New Mexico	9	2	22.2
New York	134	10	7.5
North Carolina	58	6	10.3
North Dakota	4	1	25.0
Ohio	87	8	9.2
Oklahoma	21	4	19.0
Oregon	24	1	4.2
Pennsylvania	121	11	9.1
Rhode Island	13	2	15.4
South Carolina	25	1	4.0
South Dakota	11	2	18.1
Tennessee	45	5	11.1
Texas	101	12	11.9
Utah	10	0	0
Vermont	10	1	10.0
Virginia	36	6	16.7
Washington	31	5	16.1
West Virginia	28	3	10.7
Wisconsin	40	6	15.0
Wyoming	1	0	0
NATION	1,716	176	10.3

NOW!

entrance to ground

ALL THREE

engineered for easy selling

BY WEAVER

. . . packed with user advantages to bring you repeat orders:

DUAL-GRIP ENTRANCE HEADS

Built-in connector clamp saves contractors time and money. No special fittings needed for EMT . . . no threads to cut on rigid conduit. Complete range of sizes: ½″, ¾″, 1″, 1¼″, 1½″, 2″. (Pat. No. 2,739,999)

NEW ENTRANCE ELBOWS

. . . with the same built-in quality that has made Weaver heads and ground clamps profitable items for wholesalers. Now you can sell a complete *Weaver Service Entrance Line!*

SURE-SAFETY GROUND CLAMPS

The only complete line of bronze clamps for ¼″ to 4″ pipe. Swinging tops for quick installation.

STOCK YOUR SHELVES WITH SALES

. . . sell the complete Weaver Service Entrance Line—the head, the elbow, the ground clamp.

Samples are available for demonstration. No charge, of course. Write today . . . and specify exact items desired.

J. A. WEAVER Company

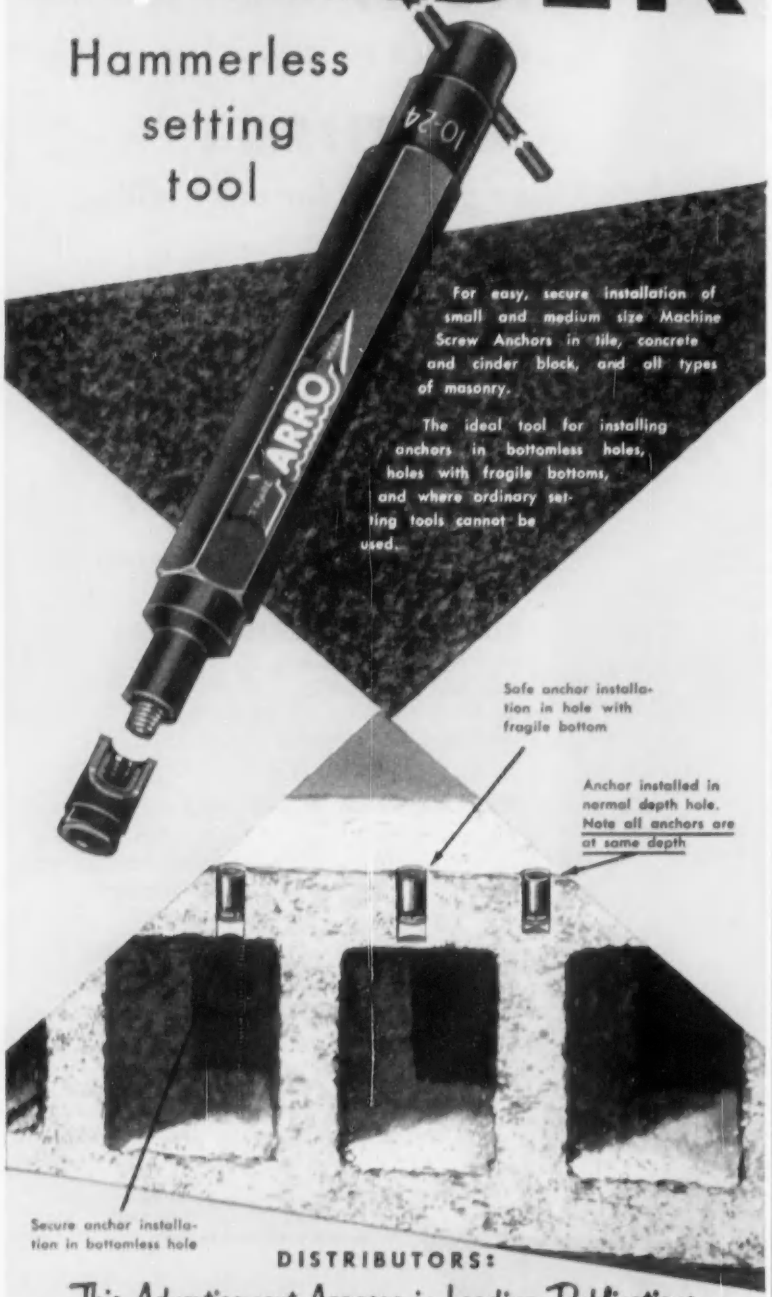
2110 HOWARD ST. ST. LOUIS 6, MO.

CEntral 1-8100

TRADE ARRO MARK

EXPANDER

Hammerless setting tool



DISTRIBUTORS:

This Advertisement Appears in Leading Publications Directed to Your Customers

ARRO EXPANSION BOLT COMPANY

1440 Boone Ave., Marion, Ohio

Continued from page 69

listed in the telephone classified section. Chances are he's an industrial-commercial contractor — and if she gets no satisfaction, the housewife is liable to decide there's no electrical firm willing to do her work."

NAED's new package kit (EW—Oct. '56, p. 104), out this month, will be designed to enable distributors to help their contractor customers overcome this lack of identity. Essentially, the kit takes materials from the various national programs, and adds some distributor-slanted material and suggestions on how the package might be used.

Tentatively included are the following:

- Housepower rating sheets (EW—Sept. '56, p. 92), which are designed for contractor use in simplifying wiring and rewiring sales, and a list of suggestions on their use.
- LBE's new "12-Idea Booklet" for contractors, which outlines the use of advertising, decals, direct mail and consumer booklets, and lists what is available.
- Explanation of the Housepower contractor training course, with ideas on how distributors can help organize local presentations and on direct mail

Continued on page 112

Rating Sheet Convincing

HOLYOKE, MASS.—The new Housepower rating sheet (EW—Sept. '56, p. 92) got quick action at Oakes Electrical Supply Co.

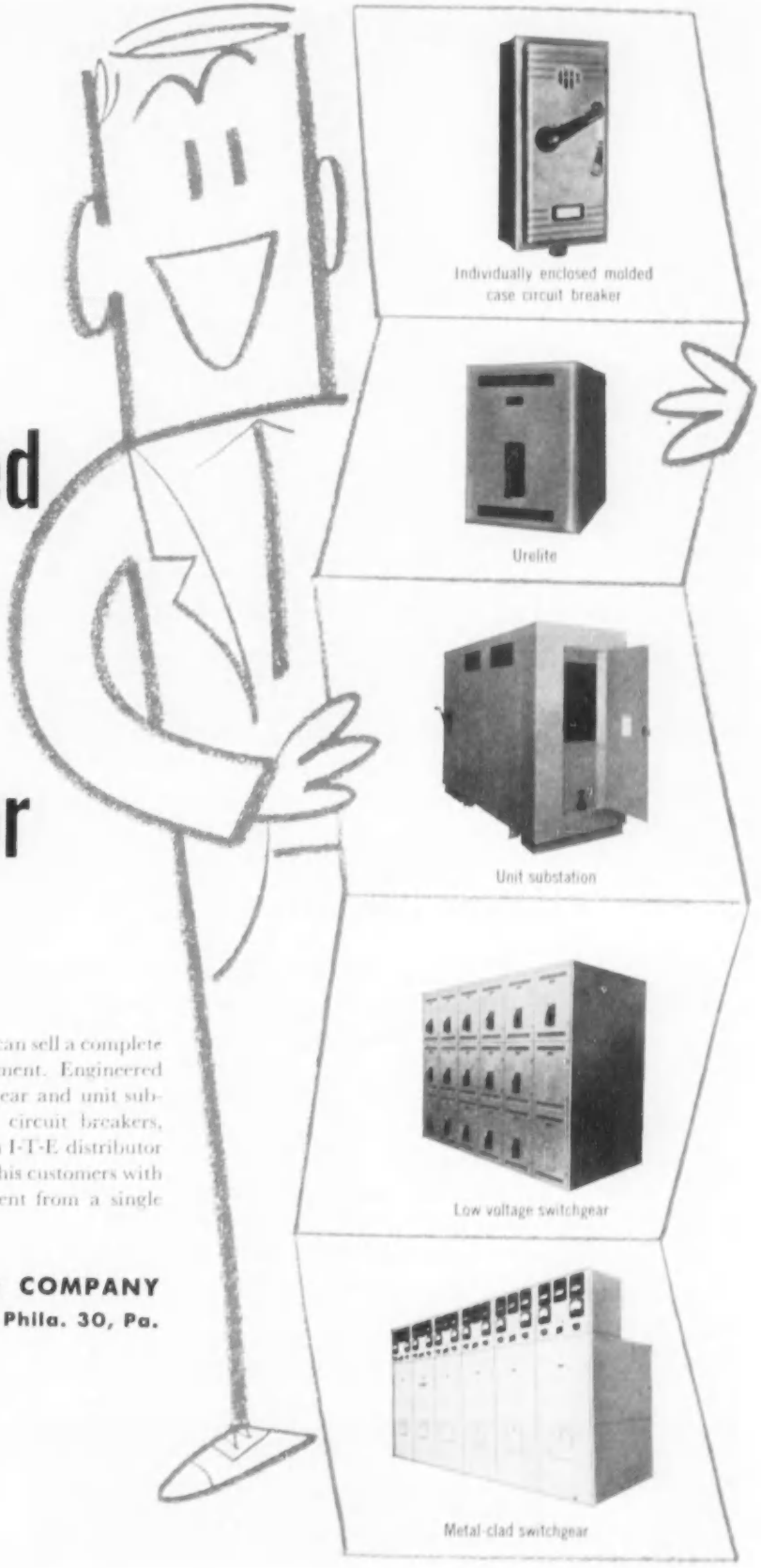
Here's how James B. (Jim) Newton tells the story:

"The morning I received my first sample of the rating sheet, I was standing in the front part of the office showing it to one of our salesmen, Charles Rheaume. As soon as he saw what the sheet was for, he took it and ran to the front counter where one of his contractor customers was picking up an order. The contractor took it from him and dashed out the door, leaving his order behind."

The contractor, Newton continues, took the rating sheet to an apartment landlord—who had been having trouble justifying his recently-improved wiring system and the consequent increase in rents.

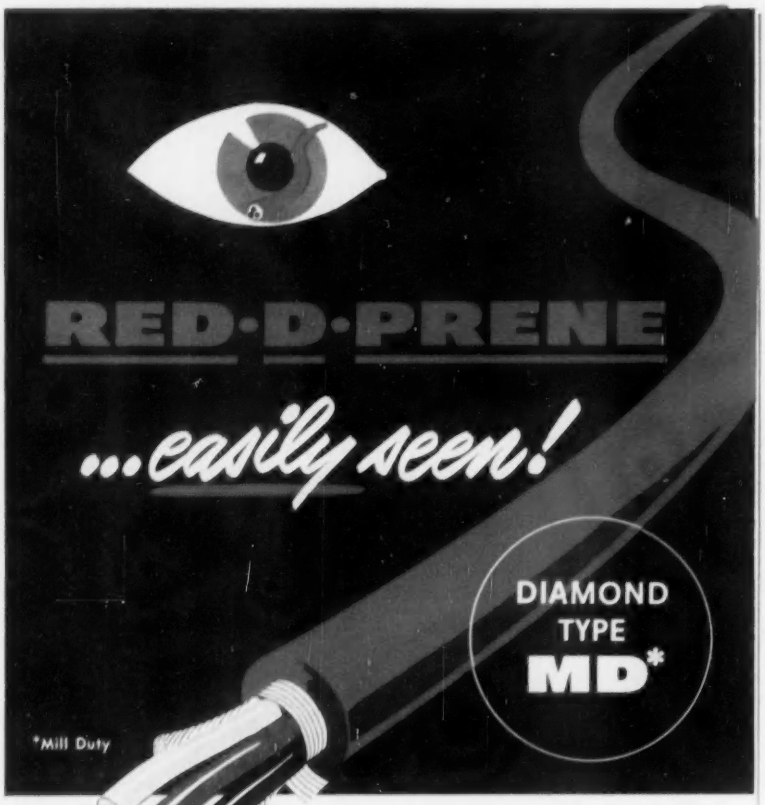
The double result: The landlord, impressed by the facts the rating sheet brought out, paid on the spot—and then he used it to convince his tenants that the rent jump was warranted.

Engineered Products Added to Distributor Line



Now authorized I-T-E distributors can sell a complete "Power Package" of I-T-E equipment. Engineered metal-clad and low voltage switchgear and unit substations, in addition to individual circuit breakers, complete this new product line. An I-T-E distributor now has the advantage of supplying his customers with a complete line of I-T-E equipment from a single source. Contact him or us.

I-T-E CIRCUIT BREAKER COMPANY
19th & Hamilton Sts., Phila. 30, Pa.



Portable Cords in Industrial Red minimizes accidents...cuts maintenance costs!

No flat sides, no off center conditions. Gives maximum flexibility, is moisture resistant.

Industrial Red sheath provides maximum visibility for absolute identification.

For positive identification — in your stockroom or inside and outside the plant by maintenance men—Type MD RED-D-PRENE is your safe choice! First designed with a tough, oil-resistant Neoprene sheath (in Industrial Red). Assures long wear, materially reduces maintenance costs. Carries current where you want it, safely and at lower cost. Outstanding for heavy duty use in Mill and Plant installations.

Without delay : : : write for our new descriptive brochure and samples!

Trade Mark

DIAMOND WIRE & CABLE CO.

SYCAMORE, ILLINOIS

and meetings to encourage contractor participation.

"We waited until the programs had their material ready," Hooper said, "and found it covered the ground very well. Our kit doesn't duplicate other materials; it simply organizes it so distributors can make the best use of it."

CLP Students Call "Objections" Main Worry

LOS ANGELES—Wholesaler, contractor and utility students want more information on how to answer customer objections to relighting.

In a survey conducted at the end of the second CLP training course sponsored by the Los Angeles Certified Lighting Bureau, 19 of 45 students asked that more class time be devoted to ways of overcoming sales resistance (*see* "How Salesmen Rate and Overcome Relighting Objections," EW—Sept. '56, p. 66). Other areas checked by the students included recommendations (11 of 45), "benefits" (9 of 45) and "the closing" (6 of 45).

The Los Angeles bureau, which is currently running a third class, also sampled student opinion on other facets of the course. Here are the highlights:

- 48 per cent liked the course balance between sales and engineering, while 45 per cent wanted more engineering.
- The overwhelming majority preferred class-participation to the straight-lecture method.
- 80 per cent preferred the "flux-of-light" to the watts-per-sq-ft method of lighting design.
- 95 per cent said that, if the bureau furnished direct-mail material, they would mail it to their customers.
- The biggest group—40 per cent—said that they specialized in industrial lighting, rather than stores, offices, floodlighting, etc.

Questionnaire comments strongly supported the course, and often mentioned its specific value to the student. Among the comments:

- "I believe that the class should be broken down to make it of more benefit to the wholesaler's men who handle questions of lighting over the phone."
- "It was a very important course to me because I was deficient in knowing how to lay out a lighting job and sell it."
- "I would be interested in a follow-up lecture on design and application."
- "Stress quality of fixtures to give a quality lighting job rather than just intensity."

Continued on page 114

HERE'S WHY

CERTIFIED CBM CERTIFIED by ETL BALLASTS

ENJOY A PREFERENCE OF NEARLY 2 TO 1

In 1955, nearly 2 out of 3 HPF ballasts were CERTIFIED CBM BALLASTS.

There is just one reason for this preference:

CERTIFIED CBM BALLASTS assure more satisfactory and economical fluorescent lighting.

Built to exacting specifications that provide the precise electrical needs of fluorescent lamps, and periodically checked by Electrical Testing Laboratories, Inc., CERTIFIED CBM BALLASTS are your assurance of:

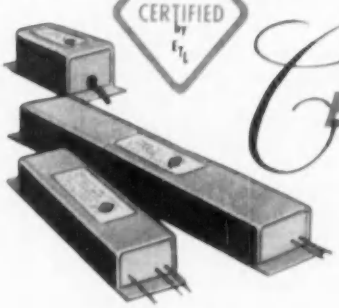
RATED LIGHT OUTPUT • RATED LAMP LIFE
LONG BALLAST LIFE • TROUBLE-FREE OPERATION
FREEDOM FROM NOISE

. . . all contributing to better lighting, lower maintenance cost and more economical fluorescent operation.

*Total ballast sales from U. S. Dept. of Commerce. CERTIFIED CBM BALLAST sales from ETL reports.

Send for free booklet, "Why It Pays to Use CERTIFIED CBM BALLASTS in Fluorescent Lighting Fixtures".

CBM CERTIFIED by ETL



CERTIFIED BALLAST MANUFACTURERS

2116 KEITH BUILDING · CLEVELAND 15, OHIO

Seven of the country's leading manufacturers of ballasts make CERTIFIED CBM BALLASTS. Participation in CBM is open to any manufacturer who wishes to qualify.

Utica's® New *Select-O-Lock** Wrench... more than 40 Open End Wrenches in 1

UTICA'S new locking adjustable wrench will lighten the load of your tool kit.

It's not necessary to weigh yourself down with sets of open end wrenches to have the right size tool for a variety of jobs. SELECT-O-LOCK with its thin jaws, will fit them all.

Push the magic button and the wrench is locked at the desired position—like an open end wrench. Pull the magic button—it's a conventional adjustable wrench.

There's no more slipping and resetting to annoy you and waste time. SELECT-O-LOCKS are built for rugged use—the magic button will not accidentally push out and unlock the wrench.

SELECT-O-LOCKS, to be known as the 93 series, are available in 6, 8, 10, 12 inch size and are priced the same as the regular 91 series.

Order from your distributor today and lighten the tool load.

Push—
it's locked

Pull—
it's unlocked

U TI CA

THE HALLMARK OF QUALITY

*PATENTED

UTICA DROP FORGE & TOOL

Division of Kelsey-Hayes Wheel Co.
Utica 4, New York

INDUSTRY-WIDE PROGRAMS

• "I feel the course was very well handled. It was beneficial to me in increasing my knowledge . . . and in removing certain misconceptions that I had."

"The bureau's third course," according to Roy H. Kreyser, coordinating director, "is going well. In fact, we didn't have to solicit enrollment; there were enough students from among those denied admission to the earlier classes and from others who had heard of the course."

Harold Thrane, General Electric Supply Co., is in charge of attendance for the classes. He also serves as chairman of the commercial-industrial division of the Los Angeles Electric League.

Commercial Promotion In Works At NAWB

NEW YORK—A program designed to help the industry up-sell the commercial and institutional wiring market will be launched in 1957 by the National Adequate Wiring Bureau.

The program, which takes NAWB into a new field, is based on a survey taken this year among contractors and utilities on the possibilities of this market. It will seek industry support, and will furnish promotional material aimed at this varied market, which includes apartment buildings, gasoline service stations, schools and others.

A NAWB task force set up the study, seeking contractor and utility opinion on the extent of potential business, the present degree of inadequacy, the need of help in selling, and the principal obstacles to sales.

Here are the survey highlights:

• Apartment houses are the most handicapped in terms of wiring, and they require the most promotional help to be sold.

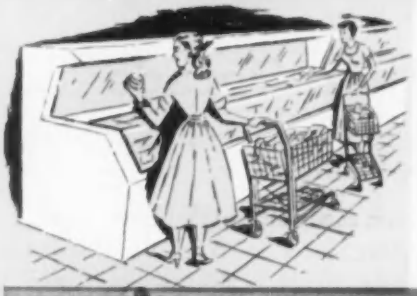
• Office buildings are the easiest to sell on up-graded wiring, and offer the best opportunity for expanded wiring sales.

• Direct mail is the best promotional approach to this market, with concentration suggested on existing rather than new structures.

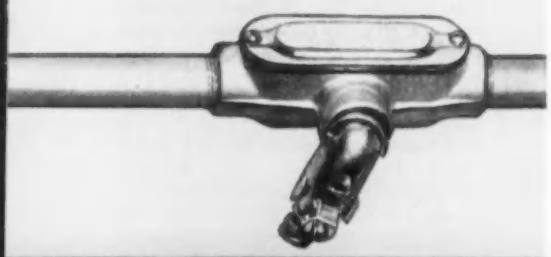
AW Bureaus Total 111

There were 111 local Adequate Wiring bureaus in operation on Oct. 5, including three new units.

The Iowa City bureau has been licensed to cover Iowa City and parts of Johnson county. The Newaygo County (Mich.) bureau was licensed, with headquarters in Muskegon. On Sept. 17, permission to operate the certification plan was given to the Northeastern Connecticut unit.

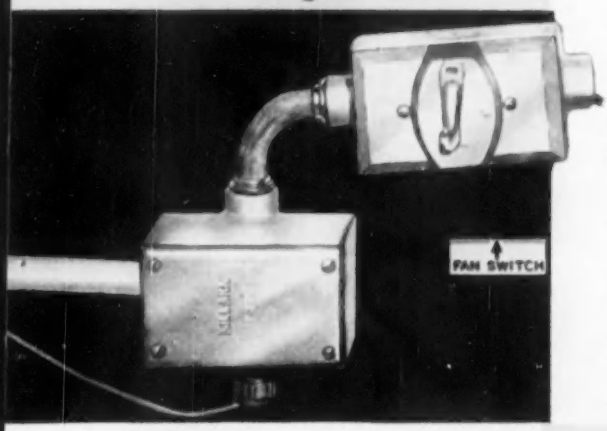


C. V. HILL & CO. DISCOVERS THE COLD FACTS ABOUT ELECTRICAL FITTINGS



Refrigeration Manufacturer Eliminates Rust Problems on Electrical Systems...

with KILLARK ALUMALLOY ELECTROLETS



"Killark fittings are worth their weight in cold" according to the C. V. Hill Company of Trenton, N. J.—manufacturers of commercial refrigeration equipment.

Wherever there's cold there's moisture—and wherever there's moisture there's likely to be rust. That's why C. V. Hill specifies Killark fittings as OEM components. They are:

Rust and Corrosion Resistant—Good for the life of the equipment on which they are installed. No unattractive stains or discoloration—ever.

Lightweight—Made of a special aluminum alloy—they add next to nothing to the weight of the equipment.

Strong—Exclusive Alumalloy is alloyed to give well-beyond-the-call-of-duty strength and resistance against breakage.

Guaranteed Performance—Every single Killark fitting must do this and more—backed up by a solid money-back guarantee.

Smooth—Attractive—The smooth, modern lines enhance the beauty of any piece of equipment. No need to design them into some hidden corner. Smooth interior, clean threads make them fast and easy to install, too. No skinned knuckles.

Contact Your Wholesaler for More Design Advantages and Prices

KILLARK ST. LOUIS

Killark

ELECTRIC MANUFACTURING COMPANY

Vandeventer and Easton Aves. St. Louis 13, Missouri

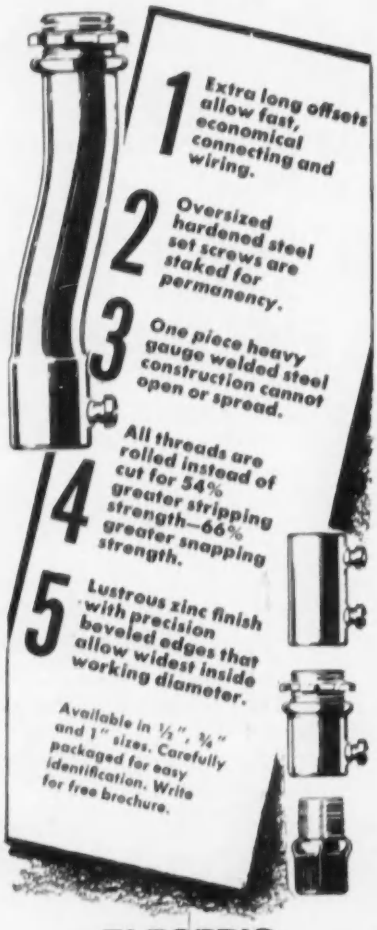
SALES OFFICES and WAREHOUSE STOCKS	Atlanta	69 Mills St., N. W.	Dallas	1901 Griffin St.	Philadelphia	2014 Chancellor St.
	Boston	49-51 D St.	Denver	1073 Galapago	Pittsburgh	4830 McKnight Road
	Buffalo	278 Johnson St.	Detroit	8319 Mack Ave.	San Francisco	714 Harrison St.
	Chicago	1528 West Adams St.	Los Angeles	412 Seaton St.	Seattle	4130 First Ave., So.
	Cincinnati	1031 Meta Dr.				
SALES OFFICES	Baltimore	11 W. 25th St.	Kansas City, Mo.	616 W. 26th St.	New York	600 W. 181st St.
	Columbus	2700 E. Main St.	Minneapolis	826 Andrus Bldg.		

Sales Offices and Warehouse Stocks throughout Canada

5 Good Reasons Why-

Tube-weld

ENDS FITTING PROBLEMS!



ELECTRIC TUBE PRODUCTS
74-16 Grand Avenue
Maspeth (N.Y.C.), N.Y.
DEfender 5-8000

CONNECT WITH ETP FOR ECONOMY

IAEL Begins Third Decade

- Leagues told they hold key to local success of National Electrical Week.
- Managers elect Don E. Rosenthal, St. Louis, president for coming year.

DETROIT, MICH.—In his keynote address before the 21st annual conference of the International Association of Electrical Leagues here last month, retiring president Edward J. McGinnis reminded the conferees that IAEL was starting its third decade with a most promising outlook for the future.

He referred to three new "tools" of the electrical industry as being especially valuable to the electrical leagues; he named the Live Better Electrically, Housepower and National Electrical Week programs as important activities joining Adequate Wiring, Certified Lighting and others which electrical leagues have aided in the past.

Registration for the IAEL meeting totaled 115, including managers and board members of 30 electrical leagues from all sections of the U. S. Four Canadian leagues were represented at the meeting, and other conferees included executives of utilities, manufacturers, distributors and contractors.

• **New Officers**—Elected to guide IAEL activities for the next 12 months are the following: president, Don E. Rosenthal, secretary-manager, St. Louis Electrical Board of Trade; vice president, Glen L. Logan, managing director, Electric League of Los Angeles, Inc.; treasurer, John S. McDermott, executive manager, The Electric Assn. of Kansas City (Mo.); and treasurer, A. H. Kessler, executive secretary, North Central Electrical League, Minneapolis, Minn.

The general sessions included many presentations of importance by leading executives representing different branches of the electrical industry. Among them were L. E. Barrett, past president of the National Association of Electrical Distributors, J. Reed Hartman, chairman of the Electrical Industry Coordinating Group, and Merrill E. Skinner, chairman of National Electrical Week.

• **Attention-Getter**—In his talk titled "Now Hear This!" Mr. Skinner pointed out the electrical industry needed its own equivalent of the Navy's shipboard command—and that it now had such an equivalent in the program planned for National Electrical Week.

NEW, he continued, gives the league manager "an effective means of gain-

Continued on page 118

RETIRING director of the Electrical League of Cleveland, A. F. "Squire" Head (center) receives a gift from his associates in recognition of 18 years' service in that post. He also served as president of the league during 1949. He came to Cleveland in 1938 and was district manager of the General Electric Supply Co. The presentation to Mr. Head was made by K. R. Schuele (right), senior member of the league's board of directors and vice president of Fries & Schuele Co. At left is John U. Walker, president of the league and of the Midland Electric Co.

WIRING DEVICE

PYLETS·

Save TIME and MONEY

Large wiring space in these PYLETS accommodates standard wiring devices of the flush mounting type.

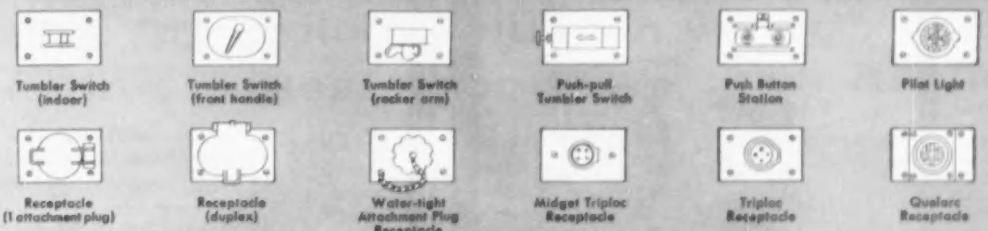
A wide choice of interchangeable covers simplifies and reduces cost of changes in outlets and control stations.

Cast metal construction, with heavy cadmium plated finish, protects devices for long trouble-free service . . . reduces maintenance cost, replacement cost and shut-down time.

Adaptability of the PYLET body to so many types of circuit controls and service outlets permits substantial reduction in inventory and stocking costs.

FS and FD SERIES FOR ORDINARY LOCATIONS

Water-Tight, Vapor-Tight and General Duty Types Available

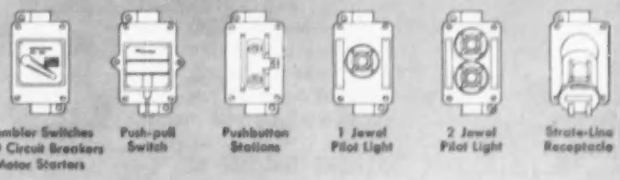


ER SERIES FOR HAZARDOUS LOCATIONS

Explosion-Proof and Dust-Tight

Explosion-proof wiring device PYLETS are made in 1 and 2-gang combinations in shallow and deep types. They are supplied complete with cover and wiring device.

Literature Furnished on Request



Sold Nationally Through Authorized Distributors

THE PYLE-NATIONAL COMPANY

WHERE QUALITY IS TRADITIONAL

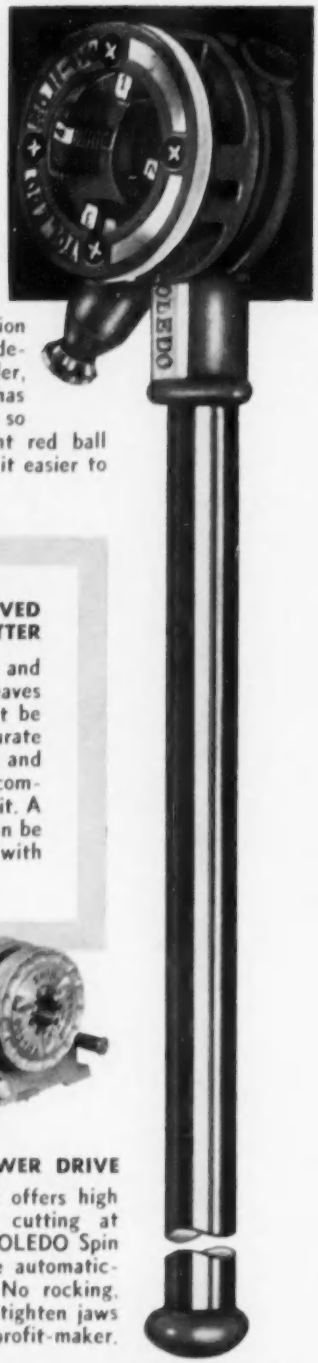
1352 North Kostner Avenue, Chicago 51, Illinois

SINCE 1897

Branch Offices and Agents in Principal Cities of the U.S. and Canada • Canadian Agent: The Holden Co., Ltd., Montreal
Railroad Export Department: International Railway Supply Co., 30 Church St., New York 7, N.Y.
Industrial Export Department: Rocke International Corp., 13 E. 40th St., New York 16, N.Y.

PLUGS AND RECEPTACLES • CIRCUIT CONTROLS • LIGHTING FIXTURES • FLOODLIGHTS

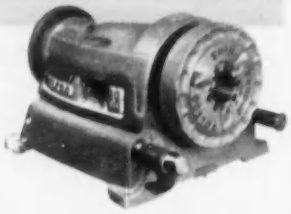
PROFIT-MAKING Triple-Threat Trio



You won't find a better combination than this popular TOLEDO trio. The dependable Small Ratchet Pipe Threader, for example, has real sales appeal—has been improved in looks and function so that it's better than ever. The bright red ball knob on the end of the handle makes it easier to carry, to use and to sell.

THE NEW, IMPROVED NO. 20 CUTTER

A clean cutting pipe and conduit tool that leaves little or no burr—can't be equalled for fast, accurate cutting. The threader and cutter are a natural combination to sell as a unit. A fast selling pair that can be used to advantage with the . . .



NO. 88 POWER DRIVE

A powerful, efficient power vise that offers high production threading, reaming and cutting at minimum investment. The exclusive TOLEDO Spin Torque Chuck locks and centers pipe automatically with a spin of the handwheel. No rocking, socking or hammering to tighten or untighten jaws of the chuck. It's a portable, powerful profit-maker.

THE TOLEDO PIPE THREADING MACHINE CO.
TOLEDO 4, OHIO

THREADED PIPE
it's right-it's best-costs less

BUILDERS OF THE WORLD'S FINEST PIPE TOOLS

TOLEDO®

PIPE THREADERS • PIPE WRENCHES • PIPE MACHINES

IAEL Begins Third Decade

Continued from page 116

ing public attention and an appropriate occasion for conducting useful projects. In short, it gives you something to hang your hat on."

He further told the electrical league representatives that "the payoff from National Electrical Week, in terms of greater understanding and appreciation of electricity and of our industry, will be felt at the local level. The week will be successful . . . only if programs and activities on the local level are vigorous and meaningful."

He outlined the steps which league managers should take in organizing local observances of NEW, and the promotional materials which the NEW national committee had available.

• **Other Activities**—League managers themselves took the floor for a panel discussion on the concluding day of the conference. The session provided a comparative analysis of different procedures used in league organization and operation.

The annual award of a plaque for the most outstanding activity of an electrical league in promoting electric housewares during the past 12 months was presented to the Bureau of Home Appliances of San Diego County. This is the second successive year in which San Diego has won this award.

Representatives from several areas where electrical leagues are not presently in existence attended the conference, and it is understood that at least two new leagues are likely to be formed within the coming year.

LETTERS

Continued from page 2

dustry and the community leadership provided by industry.

6. The kick-off on November 9 will be Business-Industry-Education Day. The objective of this project is to take every teacher in the community on a tour of several businesses and industries to teach them at first-hand about these American institutions. They in turn will then be better qualified to teach students about the American way of life and the free enterprise system.

7. Specialists from Sandusky business will instruct classes in the public schools during Industrial Recognition Week. The purpose of this will be to show students what practical application these subjects which they study in school have in industry.

8. Former citizens of Sandusky who have reached high places in business and industry are being invited as guests of honor during Industrial Recognition Week. These men will be honored at a banquet to be held in November.

This concrete, marble-faced memorial fountain is described as the "crowning jewel" of the Greater Pittsburgh Airport, seen in background. Almost three miles of Spang conduit carry wires to the underwater fixtures that light the pool at night. All of the work on this project was under the direction of the Board of County Commissioners of Allegheny County; John J. Kane, Chairman, Howard B. Stewart, John M. Walker, also the late Harry W. Fowler and George Rankin, Jr.

SPANG HD protects fountain wiring at world's largest airport terminal

. . . easy bending, corrosion-resistant qualities deciding factors in choice of conduit

County Aviation Director, John B. Sweeney, describes the new $250,000 memorial fountain as a "crowning jewel" to the Greater Pittsburgh Airport, whose terminal is the largest in the world.

At night the fountain's multi-colored, underwater lights turn the airport's entrance into a display of liquid color.

To make this "jewel" glitter, SPANG HD Galvanized Conduit, ranging from ¾" to 6", carries all the wiring to the fountain's lighting fixtures. Here's why this was another *top-quality* SPANG job:

"It took a lot of conduit bending to install the 24 underwater niche lights in the four cascading pools," says Mr. Andrew A. Joos, foreman for E. C. Ernst, Inc. "SPANG's easy bending qualities were one of the chief reasons we used it throughout the entire job."

SPANG's Heavy-Duty galvanized coating is highly resistant to corrosion and white rust, and is ideal for protection against unusually heavy moisture.

SPANG's *quality-control* makes this performance possible. It produces a uniform conduit that is easy to cut, bend and thread, and assures a smooth interior finish for easy wire fishing. The *top-quality*, galvanized finish will not chip, crack, peel or blister even under the most severe bending strains.

For a faster installation on your next conduit job, use SPANG HD. See your nearest SPANG Distributor.

A workman is shown making one of the many intricate bends required in installing the fountain's conduit. Because of its exceptional bending and corrosion-resistant qualities, Spang HD was used to carry the necessary wiring.

SPANG® CONDUIT

SPANG-CHALFANT
Division of The National Supply Company
GENERAL SALES OFFICE:
TWO GATEWAY CENTER, PITTSBURGH, PA.
District Offices and Sales Representatives in Principal Cities

Owner: County of Allegheny
Architect: Joseph Hoover, Pittsburgh, Pa.
Builder: Groomes Corp., Cheswick, Pa.
Electrical Engineer: Lawrence W. Hornfeck, Pittsburgh, Pa.
Electrical Contractor: E. C. Ernst, Inc., Pittsburgh, Pa.
Spang Distributor: Keps Electric Co., Pittsburgh, Pa.

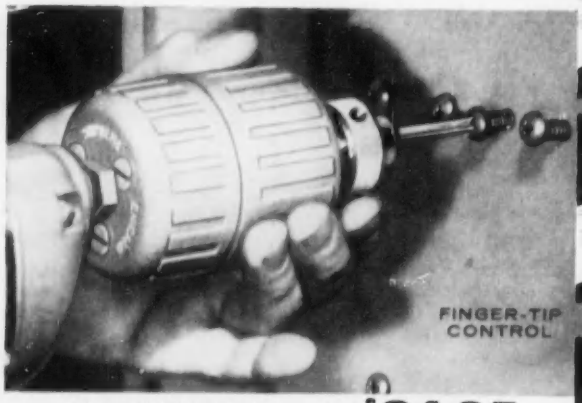
Greatest new tool in years for maintenance and production

a high quality, low cost
REVERSIBLE
SPEED REDUCER

Fits all portable drills . . . reduces speed, increases torque seven times. Ask your distributors to show you the . . .

Supreme Versamatic®

PROFESSIONAL MODEL
No. 4000-P with Yankee-Type Bit Holder



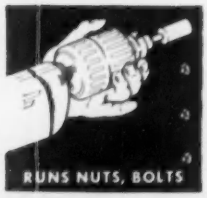
COMPLETE 14-PIECE SET . . . ONLY $24.95

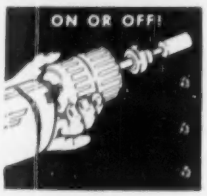
Engineered and manufactured by the makers of

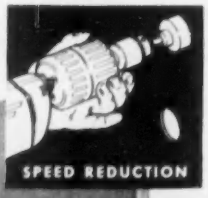
Supreme Chucks
BRAND

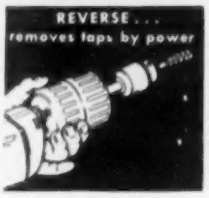
The line that's UP FRONT on America's leading power tools

SUPREME PRODUCTS CORPORATION, 2222 S. CALUMET, CHICAGO, ILLINOIS









There's More Than One Way

Continued from page 71

specifications for the job, we send them back to the salesman or to the electrical contractor involved.

"If the salesman needs assistance in explaining our figures to a customer, we will assist him personally. It is our desire to do everything we can to help the contractor. If we do, he probably will make more on the job, and his customer will be more satisfied."

Vahl says that he and Schlader draw about 1,000 lighting layouts each year for prospective customers. The service is free.

"We may not get the job right away after we submit our drawings," Vahl says, "but whether it's then or later, about 85 per cent of them are eventually accepted."

Information contained in Crescent's layouts includes the number of square feet and area involved, the ceiling height, reflection factors, recommended maintained illumination, number and types of units involved, catalog number, overall dimension of unit, fixture mounting height from floor and its type of hanging, number of lamps, total wattage involved and the type of lamp to be used.

• **Handle All Jobs**—Vahl and Schlader handle all lighting jobs for Crescent's 15 branches in 4 midwestern states. The creative methods of selling-up are their own, and they are given a wide berth in creating unusual and effective techniques in their selling efforts. And the policy has paid off.

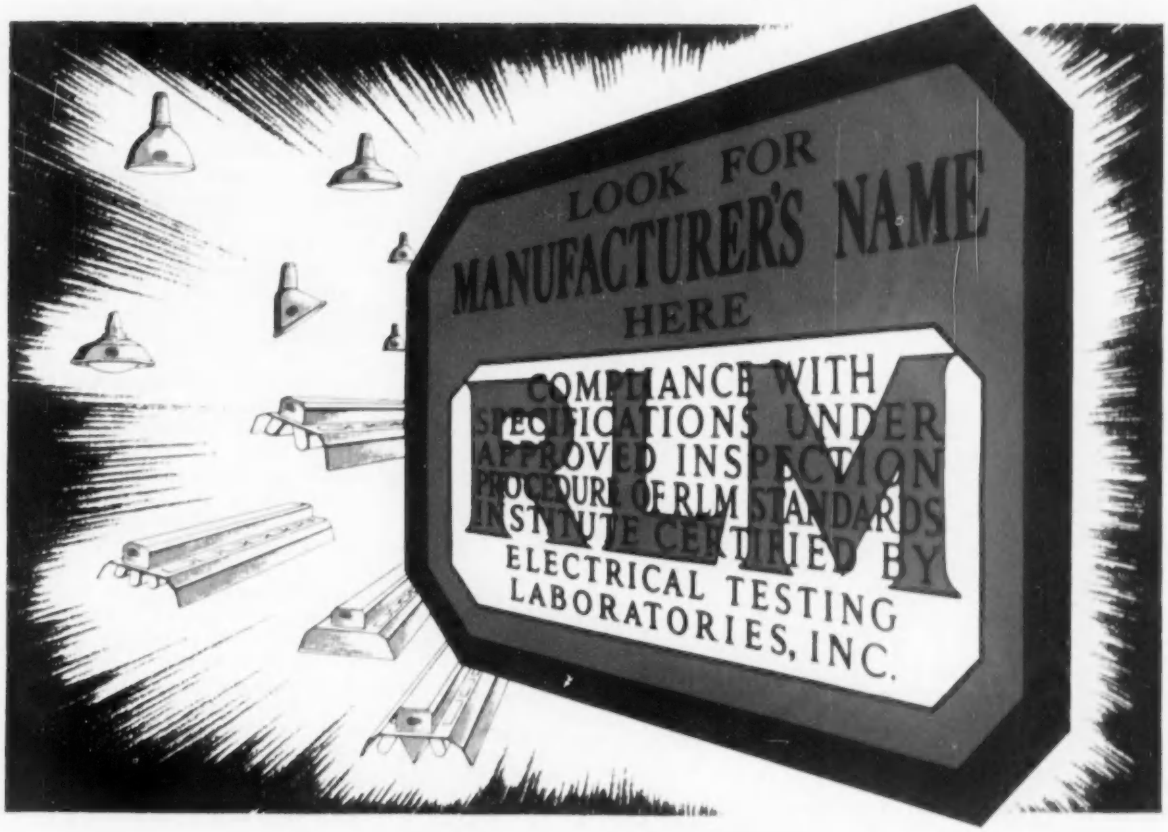
"We have been successful so far," Vahl says. "If we hadn't, the department wouldn't still be in operation. We intend to be around for a long time. We've got a few other selling ideas up our sleeves," he says with a smile.

What's New With Customers

Continued from page 106

9½-in. Hale Electric took the bare shell, insulated the sides and ceiling, and divided it into two 10-ft sections. The front half was equipped for office with drafting table, file, plan rack and cabinet. The rear half was arranged as a storage area with bins, locked sections for special items, and folding seats for workmen, which become covers for bottom bins when not in use. Under the bins are compartments for storage of 10-ft sections of conduit or raceway.

Both sections of the trailer are heated with electric baseboard heating strips. Lighting is accomplished with five shallow two-lamp 40-w fluorescent units. At the outside rear right are two watertight outlets for power tools. At the outside front right is a weatherproof junction box.



Today's Higher RLM Specifications make the RLM LABEL for INDUSTRIAL LIGHTING UNITS More Significant than ever before!

...More Significant than ever

because Today's RLM Specs assure even higher Operating Efficiency, Better Performance and Longer Life:

- Higher light output
- More seeing comfort
- Better protection against glare
- Increased brightness control
- Greater reduction of light loss
- Lower-cost installation
- Easier relamping
- Greater safety from electrical hazards
- Greater protection against corrosion

R-1523

The RLM Label affixed to a lighting unit is a Certificate of Assurance. It assures the buyer that the equipment meets or exceeds important quality standards established by the RLM Standards Institute. As shown by the partial list of user benefits at left, these higher standards make the RLM Label more significant to everyone who buys, sells or specifies industrial lighting equipment.

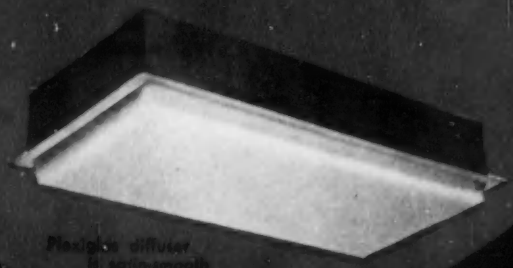
You can rely on this warranty. It is upheld by the extensive RLM Inspection and Certification Program—the real backbone of the RLM Label. Periodic inspections are made by an independent laboratory. Lighting units are checked for conformance to RLM Standards as they come off assembly lines and at all levels of distribution.

This latest edition RLM Specification Book will acquaint you with the full significance of the RLM Label today. Your copy is available without cost or obligation from: RLM Standards Institute, Suite 817, 326 West Madison Street, Chicago 6, Illinois.

RLM STANDARDS INSTITUTE

The letters RLM stand for Reflector and Lighting Equipment Manufacturers

Model 22
FLUSHED RECESSED FLUORESCENT
with dropped Plexiglas. Maintenance is fast and easy. All wiring is connected to removable pan, which is independent of the housing.



Plexiglas diffuser is satin-smooth for even illumination.

another ATLITE designed for better lighting

Model 205
DIRECTIONAL SIGN WITH DOWN LIGHT

Single face. Plastic bottom shield provides general illumination and offers quick access to wiring for maintenance.

PRE-WIRED ASSEMBLY
FAST, EASY INSTALLATION
REDUCES YOUR INVENTORY

Enter four nails — turn the screws. It's up — without carpentry. 2, 3 or 7/8" wire pulls freely into the fixture, which is always accessible. No other pull boxes, reducers or elbows needed. Available in six sizes for 60,100,150, 200-300 watt fixtures.

Send for your illustrated catalog of the complete ATLITE line.

ATLAS ELECTRIC PRODUCTS CO.
317 Ten Eyck St., Brooklyn 6, N. Y.

Census of Manufactures

Continued from page 77

plication; switchboards and cubicles; control and metering panels, power fuse mountings and similar switchboard apparatus and supplies; and industrial controls such as motor starters and controllers, electromagnetic brakes, and electronic inspection and gauging apparatus and positioning controls.

• **Electrical Lamps (Bulbs)** industry represents manufacturing establishments engaged primarily in the manufacture of electric bulbs, tubes and related light sources. Important products of the industry include incandescent filament lamps, vapor and fluorescent lamps, photoflash and photoflood lamps and other electric light sources.

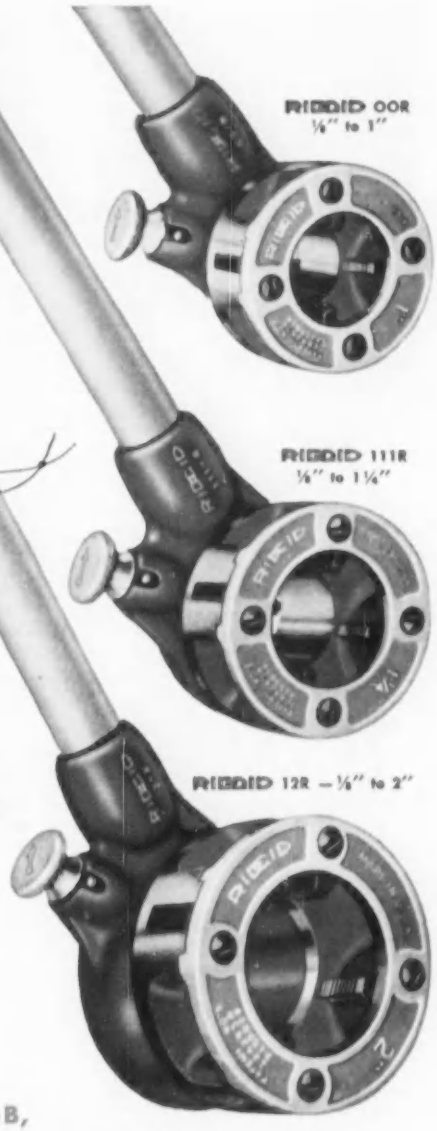
• **Transformers** industry represents manufacturing establishments engaged primarily in the manufacture of power and distribution transformers.

• **Electrical Measuring Instruments** industry represents manufacturing establishments engaged primarily in the manufacture of pocket, portable, panelboard and graphic recording instruments for measuring electricity, such as volt meters, ammeters, watt meters, watthouse meters, demand meters and other meters and indicating instruments. Also included are establishments primarily manufacturing meter transformers and analyzers for testing the electrical characteristics of internal-combustion engines, radio apparatus, etc. and instruments for indicating, measuring and recording electrical quantities and characteristics.

• **Electronic Tubes** industry represents manufacturing establishments engaged primarily in the manufacture of electronic tubes, but does not include X-ray tubes.

• **Electrical and Industrial Apparatus** industry represents manufacturing establishments engaged primarily in the manufacture of industrial and commercial apparatus and appliances not elsewhere classified. This category includes high frequency induction and dielectric heating apparatus, capacitors for industrial use, industrial electric heating units, rectifying apparatus, rheostats and resistors.

• **Electrical Appliances** industry represents manufacturing establishments engaged primarily in the manufacture of household and commercial electrical appliances used for heating, cooking and other purposes. For example: ranges, disk stoves, hot plates, cookers, casseroles, roasters, toasters, water heaters, irons, mixers, percolators, and circulating fans. This category does not cover washing machines, pressers, sewing machines, vacuum cleaners or refrigerators, etc.

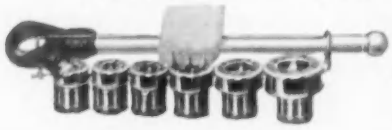


Don't miss those profitable orders for

RIDGID

1/8" to 2" Drop-Head Threaders

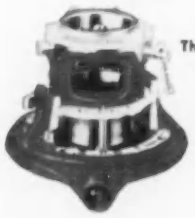
Your customers love 'em because they're really handy, time savers, easy to use. Size head they need snaps into ratchet ring . . . and they start threading! Heads can't fall out. Dies reverse easily for close-to-wall threading. Conduit dies, of course—and special dies available. Free carrier with sets. Stock 'em, tell your customers you have 'em . . . and you make money. Order today!



Carrier Free with Sets

Bolt Threaders, too—ask for RIDGID OOR-B, same easy-work advantages as drop-head pipe dies.

"Pre-Sold" RIDGID Pipe Threader Line Offers You Extra-Easy Sales



RIDGID
Jam-proof 65R
Threads 1" to 2" pipe with 1 set of dies.

RIDGID
504 Threader
for power drive use—threads 1" to 2" with 1 set of dies.

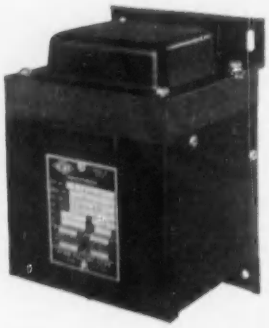
RIDGID
4P Geared Threader
2½" to 4" pipe—extra-easy handling, no upkeep.

RIDOIL
Top Quality Sulphur-Lard Thread-Cutting Oil

RIDGID
Work-Saver Pipe Tools

The Ridge Tool Company • Elyria, Ohio, U. S. A.

WHO'S BUYING BOOST & BUCK TRANSFORMERS ?



Whenever a 220/230/240 volt single phase circuit must be tapped from a power transformer to supply current to an air conditioner, exhaust blower, or other equipment driven by a 230 volt single phase motor, then there is a need for an Acme Boost and Buck Transformer.

Under the conditions indicated above, a 208 voltage supply would be obtained from the transformer connection. This is usually much too low to allow satisfactory performance of a motor rated at 220/230 or 240 volts.

To correct this low voltage condition, an Acme Electric Boost and Buck transformer connected to the supply line can increase voltage to the normal operating voltage required.

There are hundreds of sales opportunities for Acme Electric Boost and Buck transformers. Bulletin BB-199 gives you complete details.

? ARE YOU SELLING THEM

ACME ELECTRIC CORPORATION
6711 WATER STREET CUBA, NEW YORK

Acme Electric TRANSFORMERS

Needed: Local-Level Push

- Creation of aggressive organization at working level is challenge of industry-wide programs.
- NAED's Hooper says contractors and wholesalers hold key to electrical industry future.

SAN FRANCISCO, CALIF.—Temporarily laying aside tools and take-offs, some 800 members of the National Electrical Contractors Assn. met during a four-day business and educational parley, Sept. 26-29, during which they thoroughly examined the current electrical industry sales promotion programs.

One of the featured speakers during the session devoted to the industry's marketing programs was Arthur W. Hooper, executive director of the National Association of Electrical Distributors.

Mr. Hooper prefaced his talk, entitled, "As We See the Industry," by saying he assumed the inclusion of a distributor representive at this point in the program was intended to portray a growing recognition of the crucial part which contractor-wholesaler activities are destined to play in the development of industry-wide programs.

He cited the creation of a smooth-running, aggressive, creative organization at the working level to do the job as the challenge facing contractors and wholesalers in the electrical industry today.

"Here's an industry," Mr. Hooper continued, "that is spending about $10 million to motivate people to get interested in the Housepower in their homes so that they have sufficient service and wiring to Live Better . . . Electrically.

"Unless we—contractors and wholesalers—recognize the challenge here," the NAED executive director declared, "we may wind up in the unhappy position of being responsible for the electrical industry falling into one of the oldest merchandising traps—the advertising of a product or service that isn't readily available. Or, if you prefer, creating the demand without insuring a supply."

• **Room for Both**—Mr. Hooper called for more understanding and recognition of their respective responsibilities in the trade channel by both contractors and wholesalers.

He cited the fact that all of the new and improved electrical goods, both present and future, lose their value unless there are contractors available and ready and able to provide safe, quality, adequate, responsible installations for the consumer. And, if the contractor is to accomplish his part of the program, Mr. Hooper continued, he must have available to him the services which the wholesaler is set to perform—such as providing local availability of goods, emergency or day-to-day delivery, warehousing, local sales counsel and technical information, extension of credit, and follow-up on orders for special materials.

Recapping this position, Mr. Hooper declared, "I believe it is important to the future growth and prosperity of the electrical industry that we take a new look at the responibilities of the electrical contractor and the distributor.

"I think the time has come when we must cease stumbling over each other and learn to work together for the good of the industry."

He continued, "If we are to have a healthier industry, a financially attractive industry, an industry that is a credit to our economy, our employees and ourselves, we have to start with the individual."

• **Positive Approach**—The problems of the industry, Mr. Hooper contended, are not problems caused by major changes in economic trends or basic functional changes in the development of the industry; but rather, they are problems created by and maintained because of the weaknesses of individual operators of businesses.

"And they'll be solved," he maintained, "only when we develop more courage, integrity, sense of responsibility and just plain good intelligent business sense among all business men in this industry."

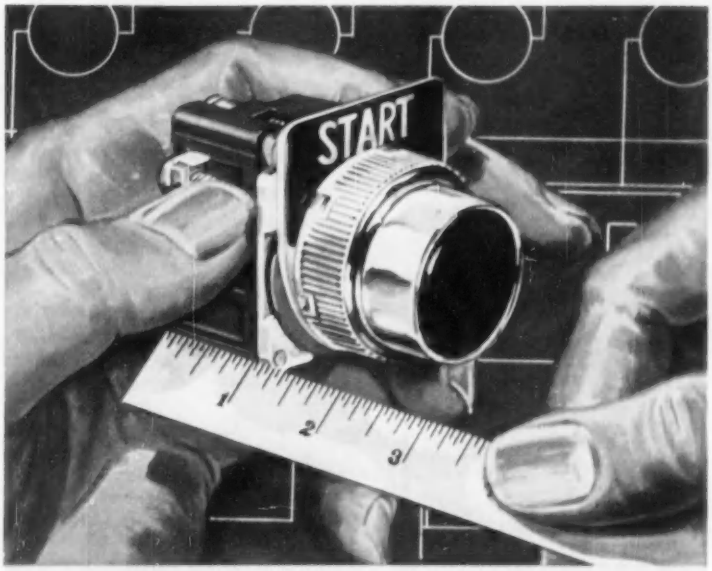
He called for a positive approach to industry problems, indicating that one of the first steps is the recognition that each branch of the industry is necessary to the total effort, that a next necessary step is demonstration of capabilities for playing a larger role in the electrical marketing picture, and finally, individual determination to run a sound operation.

The industry's greatest future problem will not be in producing the goods but in delivering them at the local level, Mr. Hooper maintained.

He cited instances of what NAED

Continued on page 126

Now...for machinery designers...new heavy duty pushbutton units built to the standards of the spectacular new Cutler-Hammer Three-Star Motor Control



These are the world's smallest heavy duty pushbuttons. They require a behind-the-panel depth of only 1 3/32". This is 40% less space than needed by the next smallest units on the market. Double-pole contact blocks are available in all combinations of normally open and normally closed contacts. Each control circuit is electrically and mechanically isolated from the other. Each circuit is clearly identified and all terminals are color coded. Rapid on-the-job circuit additions are obtained by stacking contact block on contact block.

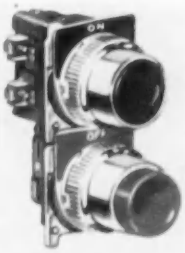
☆ ***they install easier***

☆ ***they work better***

☆ ***they last longer***

Design engineers are quick to recognize that these new heavy duty pushbuttons have *everything*. There is nothing on the market like them. They are amazingly compact to require the least back-of-panel depth. They are one-hole mounting and they are oil tight. They easily provide for as many as eight separate control circuits per pushbutton, eight completely isolated heavy duty contacts either normally open or normally closed. The buttons may be flush type, the extended type or with mushroom heads. They can be black, red, yellow, green or gray. See the new one-button control station, C-H Roto-Push. See the easiest-to-install maintained-contact pushbutton attachment and the means for padlocking any of the standard pushbuttons. There are both knob and key operated selector switches in this complete line. Also matching indicating lights and the new automation safety light, PresTest. Be sure you have complete information *now*. Write today on your company letterhead for a copy of the new Cutler-Hammer Panel Builders Handbook Pub. EE-120. CUTLER-HAMMER, Inc., 1327 St. Paul Ave., Milwaukee 1, Wisconsin.

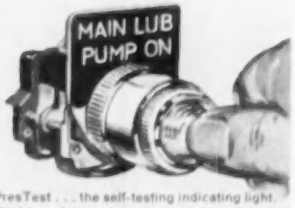
These pushbuttons may be flush type, extended type or with mushroom heads . . . in a wide range of colors for quick control identification. Standard, large, and jumbo size legend plates fit every type of operator and indicating light in the entire line.



A maintained-contact pushbutton assembly that saves more than its entire cost by installation savings. New attachment with its pushbuttons mount in minutes; no fussy adjustments. Neither alignment nor spacing of units is critical. Pushbuttons will not bind or stick; always operate perfectly.

CUTLER-HAMMER
☆ ☆ ☆
MOTOR CONTROL
C-H

The C-H one-hole mounting oil-tight indicating lights with new wide-visibility lenses are the most visible from all angles by actual light meter tests. Available in either transformer or resistor types. Lenses offered in six different colors.



PresTest . . . the self-testing indicating light. Vital to safety and proper use of machines, particularly in automation. PresTest now permits instant proof light is NOT off because of burned-out bulb. Merely pressing on the light lens disconnects bulb from its normal circuit and checks it on a test power supply. Resistor and transformer types available.

The most complete line of oil-tight selector switches on the market. Key or knob operated; two or three position. Positions may maintain contact or have spring return. Three standard contact blocks provide a wide range of circuit combinations with the use of just a single block. Unlimited circuitry by adding blocks.

Roto-Push . . . the one-button control station. One Roto-Push can provide all the control functions for which two or three separate pushbuttons would be used normally. Available in a wide range of selector and button operators. Roto-Push simplifies panel design and saves installation time to cut costs. Improves machine-operator efficiency.

HERE'S WHAT A FURNAS DISTRIBUTORSHIP means...

To *You!*

- **SELECTIVE DISTRIBUTION**—Furnas Electric is selective in its Distributor appointments so that no two serve the same accounts.
- **QUALITY PRODUCT**—There is no substitute for quality. Furnas Electric Motor Control is designed, manufactured and tested to constantly outperform all similar devices.
- **WAREHOUSING**—Furnas Electric looks to its Distributors to warehouse its products and do it profitably. Size of stocks are based on local requirements and area served.
- **PROFIT MARGIN**—Distributors enjoy substantial profit margins when selling to all classes of trade including the Original Equipment market.
- **ORDER REFERENCE**—Furnas Electric refers not only inquiries but direct orders to Distributors for handling.
- **FURNAS FIRSTS**—Furnas Electric leads the field in many control developments: First small drum controller; First to offer Dual voltage coils on polyphase motor starter at no additional cost; First drum controller with built-in thermal overload protection; First to build a line of in-between sizes of starters; First single handle tap switch.

These and many other Distributor advantages can be yours. Write for portfolio number 5412. It will give you a clear concise statement of the Furnas Electric Distributor franchise policy. Write, Furnas Electric Company, **1069** McKee Street, Batavia, Illinois.

FURNAS ELECTRIC COMPANY
BATAVIA, ILLINOIS

SALES REPRESENTATIVES IN ALL PRINCIPAL CITIES

Needed: Local-Level Push

Continued from page 124

members are doing now—or soon will be doing to help contractors carry out their part of industry programs—such as distributing Housepower Rating Sheets and packaged suggestion plans which contractors can use to capitalize on industry-wide promotions.

In conclusion, Mr. Hooper stated, "I believe those of us interested in the well being of our industry owe it to ourselves, our employees and our nation to help each other to create a solid industry dedicated to bringing greater electrical benefits to the American people."

Additional business and educational sessions during the four-day meeting were devoted to the following topics: public relations for contractors, affairs with government, technical information and training, licensing and inspection, and labor relations. A question period followed each presentation.

• **The Need**—A provocative question was raised at the opening session by the president, Oliver F. Burnett. In his address (also the convention theme), "The Need—Who Will Fill It?," Mr. Burnett pointed out that the housing needs of an increasing population, together with added commercial establishments and industrial plants, will create a tremendous need for electrical installations—particularly electrical modernization—in the next decade. He estimated that the electrical contracting business during each of the next 10 years will exceed by about 20 per cent the highest construction period in past history.

He went on to urge the contractors to broaden their perspective in relation to how that need would and should be filled. He urged the contractors to adopt a "team spirit" to get the job done, and he stressed the services of the NECA organization in this respect.

He also called attention to several problems in the electrical contracting trade, among them the manpower shortage and the problem of low-cost bidding. On the latter, he called for a new approach and new thinking, including a firm stand against the practice by all members of the association.

The membership, recognizing the manpower need of which Mr. Burnett spoke, later put into effect a resolution calling upon the NECA headquarters and the international office of the IBEW to take steps to assist contractors in filling the public's need for their services with special reference to electrical modernization work and to insure an adequate supply of skilled labor to perform all electrical work.

The most beautiful money in the world... *is made for you by* Honeylite !

HONEYLITE *combines maximum efficiency with maximum beauty.*

HONEYLITE *is easier to install.*

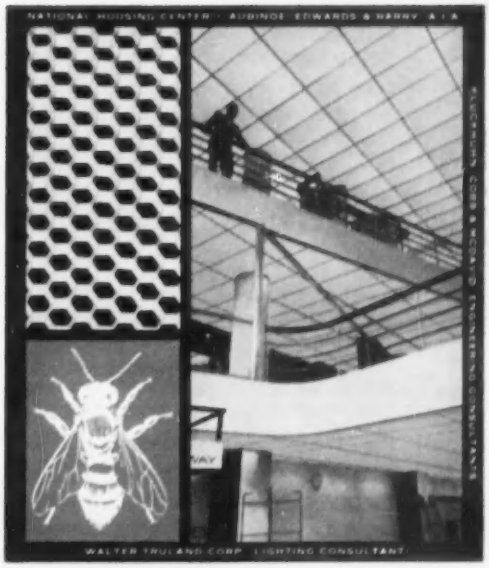
HONEYLITE *is suitable for every application. UL approved.*

Used in full ceiling lighting, in recessed troffers and in all types of lighting fixtures, HONEYLITE transmits the most light with the lowest surface brightness.

HONEYLITE may be used in all types of T-bar suspension systems. Because of its low weight (2 oz. per sq. ft.) and inherent acoustical properties, HONEYLITE requires a far less complicated suspension system than any other light diffusing material.

HONEYLITE can be incorporated in any lighting installation — suspended louvreall ceilings, troffer diffusers, industrial and commercial fixtures.

For price lists and detailed information see your local distributor or write to Dept. EC, Hexcel Products, Inc., 951-61st Street, Oakland 8, California.



HONEYLITE*

LIGHT-DIFFUSING ALUMINUM HONEYCOMB

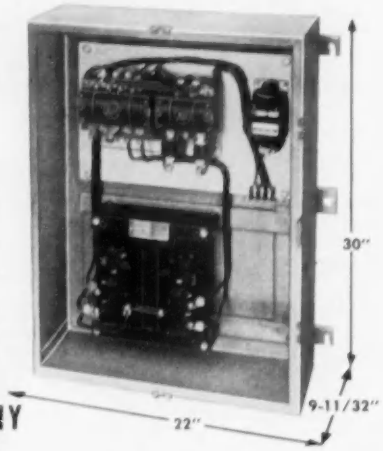
A development of HEXCEL PRODUCTS INC.

YOU as an ARROW-HART DISTRIBUTOR can offer THIS PROTECTION against LINE DISTURBANCES

ARROW AH HART

REDUCED VOLTAGE STARTERS

SATISFY POWER COMPANY REQUIREMENTS



SIZE 2 30 H.P.

TYPE "TRA" AUTO-TRANSFORMER STARTER

FOR GREATEST POSSIBLE STARTING TORQUE

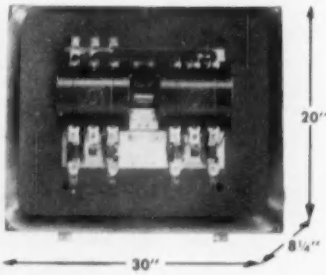
FEATURING: Advanced design, lighter, more compact with straight-thru wiring. Rugged auto-transformer with taps easily adjustable for desired voltage. Adjustable accelerating pneumatic relay. A-H bi-metallic thermal overload relays.

AVAILABLE: In NEMA Sizes 0 to 5, from 5 to 200 hp. NEMA I (General Purpose) or NEMA XII (Industrial) Enclosure.

TYPE "IRA" INCREMENT STARTER

FOR PART WINDING SQUIRREL CAGE MOTORS

Reduce current inrush on light or low-inertia starting loads by 2-step method . . . second winding energized after an adjustable time lag.



SIZE 4

AVAILABLE: In NEMA Sizes 1 to 5, up to 400 hp at 440/550 volts. NEMA I or NEMA XII Enclosure.

These A-H Starters provide automatic operation with either 3-wire control or 2-wire thermostat control systems. Supplied with 3 poles for polyphase service, 4 poles for 4-wire service.

USE THIS COUPON TO SEND FOR COMPLETE INFORMATION

ARROW AH HART

Quality

MOTOR CONTROLS
WIRING DEVICES
ENCLOSED SWITCHES
APPLIANCE SWITCHES

INDUSTRIAL CONTROL DIVISION EW

THE ARROW-HART & HEGEMAN ELECTRIC CO.
103 HAWTHORN STREET, HARTFORD 6, CONNECTICUT

Please send me information covering:

☐ *A-H Reduced Voltage Starters.*

☐ *The complete line of A-H Heating, Ventilating and Air Conditioning Controls.*

☐ *Others* _____

name _____

position _____

company _____

co. address _____

city _____ zone _____ state _____

NEMA Holds 30th Annual Meeting at Atlantic City

NEW YORK, N. Y.—Plans for the 30th annual meeting of the National Electrical Manufacturers Assn., which opens Nov. 12 at the Traymore Hotel, Atlantic City, N. J., put emphasis on the overall business, sales promotional and marketing picture for the industry. Approximately 600 executives are expected to attend.

Among the highlights of the three-day meeting will be a general membership luncheon on Nov. 13, at which the featured speaker will be Ralph J. Cordiner, president of General Electric Co.

The event which promises to be the most unusual feature of the convention is a dramatic presentation, using professional talent, of the electrical industry's contributions to the American way of life. "The Spirit of Interdependence—'56" will be presented on Wednesday afternoon, Nov. 14, and will be directed and coordinated by N. J. MacDonald, president, The Thomas & Betts Co., Inc. The theme is a roundup of the key promotional activities of all segments of the industry.

Appearing as featured performers will be C. W. Higbee, manager, electrical wire and cable dept., U. S. Rubber Co.; R. J. Sargent, general manager, marketing and distribution, consumer products divisions, Westinghouse Electric Co.; Hoyt P. Steele, president, Benjamin Electric Manufacturing Co.; and A. Callaway Allen, sales manager, electrical div., Wagner Electric Corp.

They will cover the sales promotional programs operating in the following electrical equipment markets: home appliances, wiring, commercial fields, and farm and rural areas. Their role is to inform manufacturers of these activities, explain how they can participate and the benefits to be gained from participation.

Also scheduled for Nov. 14 is a membership luncheon at which the newly elected officers of NEMA will be presented. At the same time, presentations of three 50-year certificates of service to the industry will be made.

Named to receive these awards are the following: Louis W. Cole, of Long Island City, N. Y., chairman of the board, Federal Pacific Electric Co.; A. B. Bussman, of St. Louis, Mo., vice president of the Bussman Mfg. Co. div. of McGraw Electric Co.; and D. H. Osborne, of Lima, N. Y., vice president of The Porcelain Insulator Corp.

The recipient of the James H. McGraw Award for electrical manufacturers for 1956 will also be named.

The annual entertainment for NEMA members and guests will be presented on Wednesday evening.

Slow Fan Sales Leave Distributors Overstocked

NEW YORK, N. Y.—At the end of the selling season, a total inventory of more than $1 million in household fans was reported by 122 electrical wholesalers, according to a special survey conducted by the National Association of Electrical Distributors.

The total dollar value of units on hand as of Aug. 31 was $1,198,783. This represents distributors' cost and includes all types of household fans except kitchen, bathroom and exhaust types.

The survey was conducted by the NAED Fan and Ventilating committee. Chairman C. O. Stoike, of Revere Electric Supply Co., Chicago, Ill., attributed the large inventory for comparatively few distributors to a slow fan selling season, probably brought about by generally cool summer weather.

While neither NAED nor the Fan and Ventilating committee have made definite recommendations with regard to this situation, NAED reports that many individual distributors have indicated that they feel some type of protection on their investment is needed, in view of the introduction of new fan models each season.

Washington Group Studies Credit

WASHINGTON, D. C.—A study of consumer credit—probably the most comprehensive ever made—is being made by the Federal Reserve Board at the request of the President. It will be released around the end of the year.

FRB researchers are polling the automobile, appliance and other industries to determine business thinking on the soundness of credit buying, and incidentally, exploring the possible need for controls.

In addition, competent economists are being asked to make an analysis of how credit buying fits into the total U. S. economic picture.

Progress Mfg. Co. Builds New Dallas Plant

DALLAS, TEX.—Construction is underway on a 29,000-sq ft building that will almost triple the area occupied in Dallas by Progress Manufacturing Co., maker of home lighting fixtures and kitchen ventilating equipment.

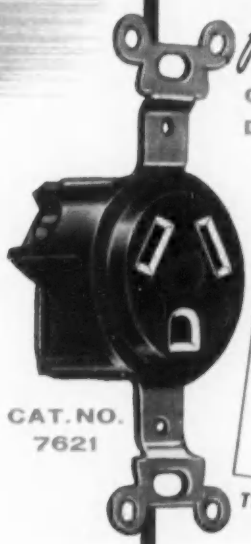
The firm expects to move to the new building on Jan. 1, 1957, from its present 10,000-sq ft site. The Dallas plant serves Texas, Louisiana, Arkansas, Oklahoma and part of Missouri.

MORE ARROW-HART SAFETY FIRSTS

20 AMPERE GROUNDING RECEPTACLES

for 125 Volts
277 Volts

ONLY YOUR ARROW-HART DISTRIBUTOR HAS THEM!



CAT. NO. 7621

ATTENTION ... ARROW-HART DISTRIBUTORS

These are other safety *firsts* only YOU can offer the Electrical Trade.

With the exception of the note, this ad appears in national trade publications.

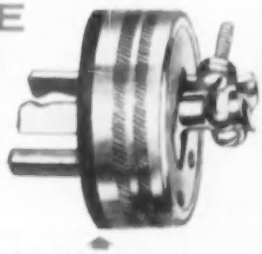
P.S. They make selling easier!

THE MARKET!

and

20 AMPERE GROUNDING CAPS

Featuring the Arrow-Hart Rubber Rim that means greater insulation, better finger grip!



This Rubber Rim Is An Arrow-Hart Exclusive!

CAT. NO. 7264

Receptacles and Grounding Caps are listed as standard by Underwriters' Laboratories.

Write for free booklet (Form 6440) "FOR SAFETY . . . IMPORTANT FACTS YOU SHOULD KNOW ABOUT GROUNDING ELECTRICTY"

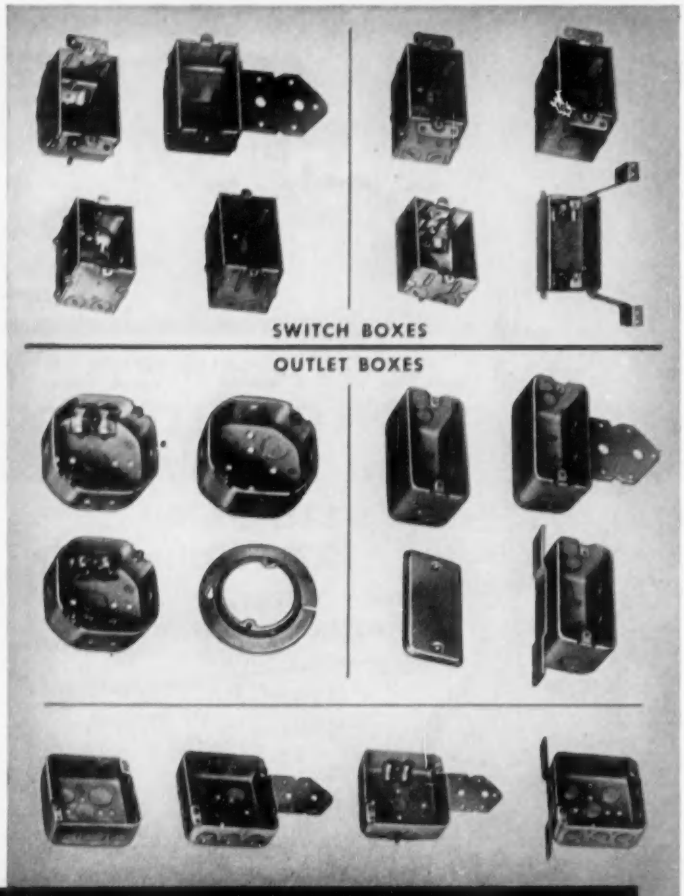
Wiring Device Division

THE ARROW-HART & HEGEMAN ELECTRIC CO.

103 Hawthorn Street, Hartford 6, Connecticut

Offices and Sales Engineers in Principal Cities

Quality WIRING DEVICES • MOTOR CONTROLS • ENCLOSED SWITCHES • APPLIANCE SWITCHES



Get a bigger share of "BOX" business with the KEYSTONE QUALITY LINE

You name it and Keystone has it! Square cornered, bevel cornered, and non-gangable switch boxes. Octagon, square, and handy type outlet boxes. Plus bar hangers and bar-box combinations to meet every need. What's more, every item in the Keystone Quality Line is loaded with time-saving, cost reducing features. Knockouts and pri-outs are designed for easy, split-second removal. BX or Romex clamps are preassembled and nested in the box for easier pulling of wires. Holes for clamp screws are extruded to eliminate stripping of threads. Switch and outlet boxes are available with brackets for side or face mounting to studs. And the popular octagon outlet boxes are offered separately or in combination with deep or shallow offset bar hangers.

Yes, when it comes to wiring devices and wiring installation equipment, you can count on Keystone for the items you *need when you need them.* A complete new catalog describes the entire Keystone Quality Line. Send for your free copy today!

It pays to figure on Keystone

KEYSTONE MANUFACTURING COMPANY
23328 SHERWOOD AVENUE • CENTER LINE (Detroit) MICHIGAN

. . . the Complete Line of Wiring Installation Equipment
SOLD ONLY THROUGH RECOGNIZED ELECTRICAL DISTRIBUTORS

IES Looks Ahead 50 Years On Golden Anniversary

BOSTON, MASS.—By the year 2006, A.D., the American people will use 20 times the amount of electric power they now use. This forecast for 50 years hence was made during the Illuminating Engineering Society's national technical conference marking the society's golden anniversary.

More than 1,000 lighting designers and specialists in illumination and related fields, from every section of the U. S. and from Canada attended the four-day conference.

The latest perfected advances in lighting and the newest research developments in the field were reported at forums and demonstrated at exhibits and clinics during the sessions.

• **Engineer Shortage**—IES, which has grown from an initial 25 members in 1906 to a current membership of 8,500 is now preparing to launch an exhaustive effort to prevent a critical shortage of illuminating engineers during the next five years, according to the retiring president, Robert F. Hartenstein, general supervisor of commercial and farm sales for Ohio Edison Co., Akron, Ohio. More than 3,000 persons, specially trained in the techniques of the science of lighting, will be required, he stated.

A similar theme was propounded by the new IES president, Marshall N. Waterman, assistant manager of commercial engineering, Westinghouse Lamp div., Bloomfield, N. J. He stated that growing public demand for better lighting in the home is making it essential that architects and interior designers be thoroughly trained in the science of modern illumination. IES expects to increase greatly its aid to the building, decorating and engineering professions, he stated.

Other speakers referred to the need for residential lighting to catch up to the pace set by recent improvements in commercial and industrial lighting.

Among other topics, the conference dealt with the increased lighting needs of workers in the older-age brackets, the role of lighting in reducing highway accidents and crime on city streets and new high-intensity runway lighting systems for airports.

• **Honors**—Dr. Irving Langmuir, reseach scientist who perfected the first gas-filled electric light bulbs, was voted the first honorary membership in the society to be awarded in 25 years.

Square D Builds in B. C.

VANCOUVER, B. C.—Square D Co. Ltd. has established an assembly plant at Burnaby, B. C. The new plant has an area of 7,000-sq ft with additional area for future expansion.

ELECTRI-LIVING HOUSE OF CHARLOTTE, N. C.: SPECIFIED REMCON
ELECTRI-LIVING HOUSE OF ATLANTA, GA.: SPECIFIED REMCON
ELECTRI-LIVING HOUSE OF PORTLAND, ORE.: SPECIFIED REMCON
ELECTRI-LIVING HOUSE OF BOSTON, MASS.: SPECIFIED REMCON
ELECTRI-LIVING HOUSE OF CHICAGO, ILL.: SPECIFIED REMCON
ELECTRI-LIVING HOUSE OF LOS ANGELES, CAL.: SPECIFIED REMCON
NEGA SELECTRIC HOME, SPOKANE, WASH.: SPECIFIED REMCON
PASADENA TOURNAMENT OF HOMES, PASADENA: SPECIFIED REMCON
BETTER HOMES & GARDENS HOME, BINGHAMTON: SPECIFIED REMCON
O.H.I. CAMPUS HOME, [illegible], CAL.: SPECIFIED REMCON
STOCKTON PARADE OF HOMES, STOCKTON, CALIF.: SPECIFIED REMCON
BETTER HOMES & GARDENS HOME, ST. PAUL: SPECIFIED REMCON
1957 BUILDERS [illegible] DETROIT, MICH.: SPECIFIED REMCON
HOUSE THE HOME BUILT, TRAVERSE MICHIGAN: SPECIFIED REMCON
WESTCHESTER HOME-A-RAMA, WHITE PLAINS, N.Y.: SPECIFIED REMCON
PARADE OF HOMES CAMPUS [illegible]: SPECIFIED REMCON
ADEQUATE WIRING HOME, NEW ORLEANS, LA.: SPECIFIED REMCON

Are you getting your share?

TODAY MORE AND MORE HOMES SPECIFY REMCON

More and more of the nation's trend-setting builders are putting REMCON into their model homes. Never before has such a major advance in electrical wiring been adopted by so many so fast.

REMCON

low voltage switching

A division of Pyramid Instrument Corporation, Lynbrook, N. Y. manufacturer of the famous AMPROBE snap-around volt-ammeter.

More and more electricians ask for REMCON! They've found it satisfies their customers and boosts profits as much as 40%. That's why they come back for more. Start cashing in with REMCON NOW.

Now packed in handy carrying carton

RUGGED DURABLE DEPENDABLE

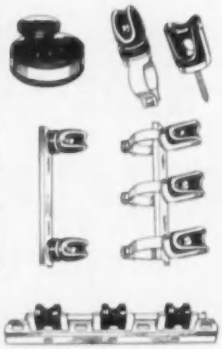
PORCELAIN PRODUCTS

WIREHOLDERS

AND SECONDARY SERVICE MATERIALS

Where *quality* and *performance* are necessary for continuous line service—Porcelain Products wireholders and secondary service materials *assure* reliability. They're engineered with strong, sturdy construction—metal in tension, porcelain in compression. Steel parts are hot-dip galvanized . . . screw threads are extra sharp, lubricated for ease of installation. Larger, pulley-action wire hole, for large wire sizes—prevents chafing, wire wear.

These EXTRA features—*plus*—Porcelain Products "Quality Line" reputation, make an unbeatable combination . . . SPECIFY PORCELAIN PRODUCTS wireholders and secondary service materials.



61 Years **Porcelain Products, Inc.** PP INC.
FINDLAY, OHIO

Electrical Usage Up 9.2% During Summer

NEW YORK, N. Y.—Last summer's use of electricity was up 9.2 per cent over the previous peak set in 1955, according to a survey of 90 top utility companies conducted by Electrical World, McGraw-Hill publication.

The utility industry's peak load soared to a record high of 99,720,348-kw. This record was achieved in spite of cooler-than-normal summer temperatures, which held down the contribution of air conditioning units, and the mid-summer steel strike, which acted as a restraining influence on loads in some sections of the country.

August continued to be the month in which individual summer peaks occurred most frequently around the country. Over half of the companies surveyed reported their peak loads occurred then.

In the same issue, the magazine stated that the nation's utility companies will have to increase their production of electricity by 160 per cent between now and 1970 to keep pace with the population growth and increasing national output. This would result in the production of 1¾ trillion-kwhr of electricity. The industry will produce 600 billion-kwhr in 1956.

Graybar Gets New Site In Jacksonville, Fla.

JACKSONVILLE, FLA.—Graybar Electric Co., held open house last month to celebrate opening of the firm's new office and warehouse building at 1563 Jessie St.

The new building provides the firm with 55,000-sq feet of floor space for its Jacksonville operations. It replaces the company's former office and warehouse building at 12th and Main St.

The offices, display rooms and city counter area are completely air conditioned. The latest in materials handling equipment has been installed and a complete intercom system will serve the entire plant, it is stated.

L. Morgan Smith is manager of the Jacksonville branch, which serves as district headquarters for Florida.

Victor Electric Moves To Rhode Island

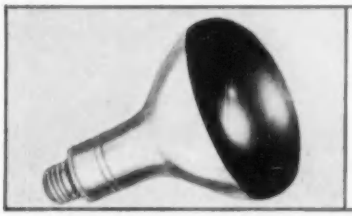
WEST WARWICK, R. I.—Victor Electric Wire and Cable Corp., manufacturers of insulated wire and cord sets, has moved its executive offices and plant to this city from Clifton, N. J.

The new factory occupies three floors and contains over 200,000-sq ft and greatly expands the company's services and facilities, according to Marvin J. Grober, sales manager.

the WORTHWHILE PROFITS come from specialties

the specialties come from the amplex LINE

Consistently, amplex brings you more of the quality, higher-profit lighting specialties than any other single lamp manufacturer. Here are a few representative specialties from the complete amplex line.



COLORBEAMS

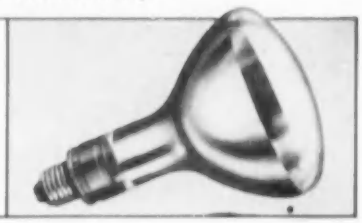
For window and showcase lighting; indoor-outdoor color floodlighting; colorful accent lighting in restaurants and hotel lobbies.

75W R30 in 8 colors; 150W Par 38 in 10 colors for outdoor-indoor use; 150, 200 and 300W R40 in 8 colors. All colors brilliant, sparkling, guaranteed permanent.

Pure silver sealed-in reflector lining. Guaranteed permanent efficiency.

SPARK-L-LITES

Brilliant beam with filament striations for highlighting diamonds, jewelry, silverware, furs, electrical appliances. Pure inside silvered reflector surface. 100 to 500W. All ratings available with all-mechanical Amplock construction for permanent locking of glass bulb to base.



SWIVELITES

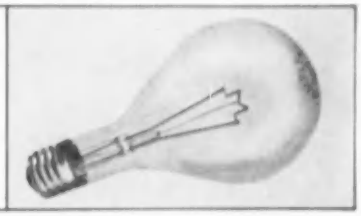
Portable Base plug-in units can be mounted anywhere; base plate removable for permanent wall or ceiling mounting. Other portable units: Swivelite Escutcheon Units, Clamp-ons, Deca Pole Adapters; Focalites. Exclusive Swivelite features: fingertip positioning; lustrous, lasting finish; interchangeable hoods, air flow ventilation.

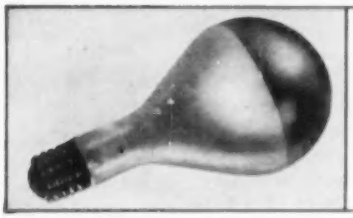
STREET and TRAFFIC SIGNAL LAMPS

A complete line of Series Street and Multiple Street Lamps in standard and group replacement types. Both inside frosted and clear.

Traffic Signal Lamps, 40 to 100W, inside frosted and clear.

Street and Traffic Signal Lamps available in Weathercote for severe climatic conditions.





INDIRECT REFLECTORS

Soft, glareless, evenly distributed illumination in fixtures which conceal the light source. Silvered bowl. Especially recommended for such applications as drafting rooms, printing plants, schools. Rated life 2,000 hours. Wattages from 60 to 1000; sizes from 300W up with Amplock bases.

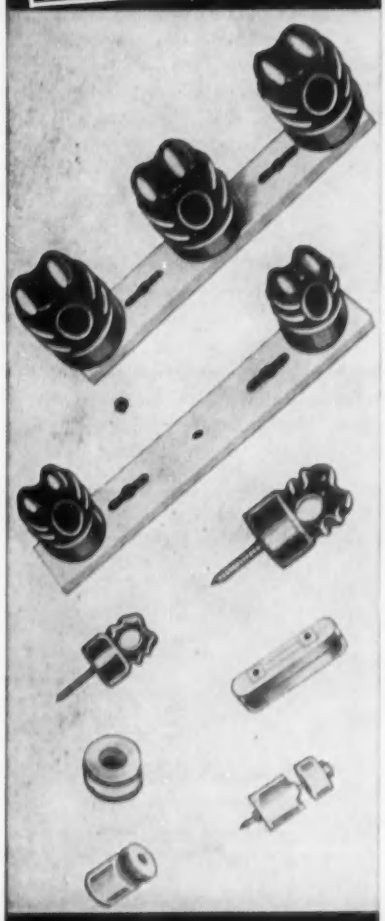
With an amplex franchise, you have a lighting line that will fill every specialized lighting need. Your customers will *know* that you can meet their most exacting lighting requirements—so they'll look to you *too* as a convenient, dependable source of general-purpose incandescent and fluorescent lamps. Naturally, these bread-and-butter items *as well as* the high-profit specialties are included in the complete amplex line.

And with an amplex franchise, you *also* benefit from better discounts and a comprehensive program of advertising, merchandising and promotional material.

Write today for information on the amplex franchise and amplex specialties.

amplex
CORPORATION
Dept. EW 11-56
111 Water St., B'klyn 1, N.Y.

Always Use
UNIVERSAL
PORCELAIN
INSULATORS
MADE FOR THOSE WHO WANT QUALITY



THE UNIVERSAL
CLAY PRODUCTS CO.
1549 EAST FIRST ST.
SANDUSKY, OHIO

DURING a two-day open house celebrating the opening of a new Wesco distribution center in Madison, Wis., chief hosts were A. M. Ryser (left) consumer products manager, and F. W. Kelling, apparatus and supply manager. The new quarters include 28,000-sq ft of warehouse space, plus offices, showroom, and truck and railroad loading docks. This gives the Madison branch about three times as much space as formerly available in the location it had used for 29 years.

'Big Business' Here to Stay, Gray Declares

EVANSVILLE, IND.—Big business, sensitive to the needs of the individuals who comprise it and to the requirements of society, will be the surviving form of enterprise in mass-production and mass-marketing industries, declared Elisha Gray II, president, Whirlpool-Seeger Corp., recently in an address to the Foreman's Club of this city.

"I don't think it is possible—or at least it is most unlikely—that this country will pass laws legislating against a business form that could provide a better service or product to the mass of consumers," he maintained.

In his talk, entitled "Big Business and Mutual Management," Mr. Gray also stressed the importance of the qualified individual in mutual management of a big corporation. Expansion of enterprises should result in attaching more importance to the individual in the business organization, he declared.

In fields where large accumulations of capital or facilities are needed to keep up with technological growth and where national selling is done through expensive mass media, Mr. Gray stated, basic business arithmetic is forcing enterprises to expand.

Observing that as a business expands and becomes more complex, it is not possible for any one individual to be qualified in all facets of the operation, he said that in the model big business management decisions will flow from the bottom up. "In a big successful business, everyone who is qualified must manage—not just the top few," he continued.

He defined the role of top management as the ability to weave a group of specially talented people, each an expert in his own field, into an effective whole.

To attract and hold talented personnel, the large company must set up a system of remuneration, rewards and securities that will compete very favorably with anything that the most successful small business could provide, Mr. Gray said.

Big business must base its actions on the good of the individual in order to create a "driving spirit" that changes an ordinary enterprise into a great one, concluded the corporation president.

McGraw Electric, Edison Inc. Plan Merger

CHICAGO, ILL.—McGraw Electric Co., and Thomas A. Edison, Inc. will soon be merged into a firm known as McGraw-Edison Co., providing stockholders of both companies agree.

The boards of directors of the two companies approved such a merger plan last month. Under the plan Max McGraw, president of McGraw Electric, will continue as president and chief executive officer of the consolidated company. Charles Edison, chairman of the Edison company, will become chairman and a director of the new firm created by the merger.

BENDING LOAD TEST SHOWS STRENGTH AND GRIP

of National Electric E. M. T. Fittings

Two lengths of ½" E.M.T. were joined with an NE coupling (all that was needed was a screwdriver) and cinder blocks weighing 54 lbs. were suspended from the joint. The entire assembly was then rolled along the supports with no effect on the coupling's efficiency . . . a convincing demonstration of the strength of the NE fittings. Especially since the Underwriters require only a thirty pound weight for this test.

National Electric E.M.T. connectors and couplings are safe and strong because of the sturdy one-piece pressed steel body and outstanding holding action of the patented NE embedding screw. The contact of the screw in the tubing wall constitutes a safe permanent ground. All fittings are galvanized for full protection against corrosion.

National Electric E.M.T. connectors and couplings are the easy way to assure a quality, uniform installation. Try them . . . they're sold by the leading electrical distributors everywhere.

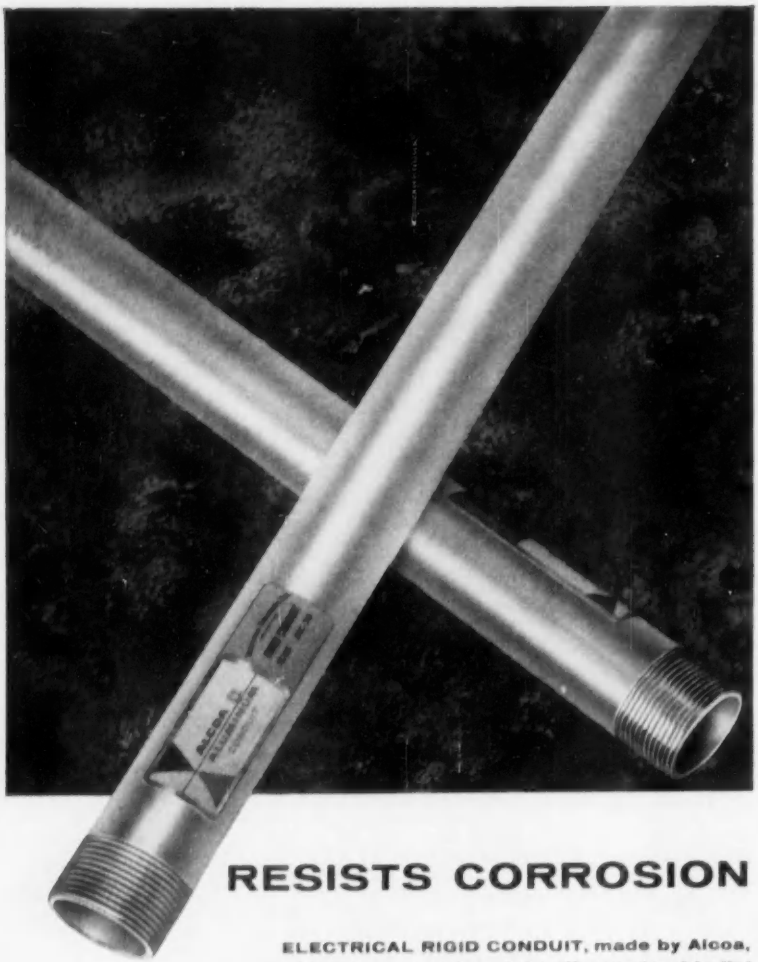
The outstanding holding action and vibration resistance of National Electric Fittings are obtained when the tip of the patented screw is driven home and embedded in the tubing wall.

Patent No. 2,455,180

National Electric Products

PITTSBURGH, PA.

3 Plants • 10 Warehouses • 36 Sales Offices



RESISTS CORROSION

ELECTRICAL RIGID CONDUIT, made by Alcoa, will cross corrosion right off your trouble list . . . for aluminum won't rust and resists corrosion even in contaminated areas. Excellent for exterior use. And it rarely needs painting.

Because aluminum is so resistant, so durable, so ideal for electrical rigid conduit, it is the best investment you can possibly make. It outlasts other conduit many times over . . . saves continuously on maintenance.

Moreover, it is nonsparking, nonmagnetic. It has the approval of Underwriters' Laboratories. Its nonmagnetic feature means less voltage drop, points the way to installation savings . . . for you can run longer lines or use smaller wires. And you can separate conductors regardless of load.

Get the complete details on good-looking, long-lasting Alcoa® Aluminum Electrical Rigid Conduit from your local Alcoa sales office. Or write Aluminum Company of America, 2329-L Alcoa Building, Pittsburgh 19, Pennsylvania.

Your Guide to the Best in Aluminum Value

THE ALCOA HOUR
TELEVISION'S FINEST LIVE DRAMA
ALTERNATE SUNDAY EVENINGS

Wire and Cable Leaders Will Meet Nov. 12

NEW YORK, N. Y.—The annual meeting of the Wire and Cable section of the National Electrical Manufacturers Assn. will be held in Atlantic City, N. J., Nov. 12-14, in conjunction with the NEMA convention. The announcement was made by A. D. R. Fraser, section chairman and president of Rome Cable Corp., Rome, N. Y.

Among the highlights of the meeting will be an address by J. Carlton Ward, Jr., president of Vitro Corp. of America, New York City. Mr. Ward, a pioneer in the aircraft industry and organizer-director of the government's Aircraft Nuclear Propulsion program, will speak Tuesday morning, Nov. 13. His subject will be "Atomic Energy and American Industry."

Subjects to be covered by the various speakers, all top-flight authorities in their respective fields according to the meeting planners, are of particular interest to companies in the wire and cable business and include such topics as the following:

Federal Trade services to industry; 75 years of cable usage by Consolidated Edison; future trends for flexible cords in the appliance industry; evaluation of Federal Trade Practice Conferences; plastics in the wire and cable industry; and results of UL studies of current carrying capacities of conductors in various types of raceways.

The general chairman of the meeting will be B. F. Ilsley, manager, Wire and Cable dept., General Electric Co., Schenectady, N. Y.

Fringe Benefits Cost $819 Per Employee

WASHINGTON, D. C.—A survey of 1,000 companies by the Chamber of Commerce of the U. S. shows that fringe benefit costs averaged $819 per employee in 1955, an increase of $99 since 1953.

A breakdown of the total 1955 average payment shows $254 for agreed-upon programs of pensions and insurance, $254 for vacations and holidays, $145 for legally required programs (old-age and survivors insurance, unemployment and workmen's compensation and others), $89 for rest periods and $77 for miscellaneous.

Ninety-six per cent of the companies surveyed reported payments for employee insurance, with payments averaging 2.1 per cent of payroll. Payments for pensions were reported by 75 per cent of the firms, with payments averaging 5.1 per cent of payroll.

The fringe payments varied widely among the reporting companies, ranging from less than five per cent to more than 50 per cent of payroll. The average payment in 1955 was 20.3

G-E Fluorescent Lamp Facts:

Less than 1% of all General Electric 40-watt fluorescent lamps are as much as 5% below published light output!

G-E LAMPS GIVE YOU MORE FOR ALL YOUR LIGHTING DOLLARS

You can "measure" the light output of G-E fluorescent lamps, *right in the carton!*

GENERAL ELECTRIC UNIFORMITY IS WHY—G-E 40-watt fluorescent lamps give you all the light you pay for. Their light output is so uniform that you're amazed at their performance—even before you put one in a socket. There's practically no such thing as a "liar" G-E lamp—a lamp that uses full power without delivering its rated lumen output. Less than 1% of all General Electric 40-watt fluorescent lamps are as much as 5% below their average published light output of 2500 lumens.

G-E LAMPS SAVE YOU MONEY—Today's General Electric 40-watt fluorescent lamps deliver 30% more light than those you bought in 1950. Based on the average cost of burning 24 G-E 40-watt fluorescent lamps, this gives you a *bonus of light* worth almost $55! Put another way, this extra light equals the total light output of 79 100-watt incandescent bulbs over their entire life!

But G-E lamp uniformity meant more than uniform light output. It also meant freedom from defects—on the average, 99.9% of all G-E 40-watt fluorescent lamps are free from physical defects that could affect performance in service. And uniform life, too, means that after one year of service in single shift plants (2500 hours) an average of 99 out of 100 General Electric 40-watt fluorescent lamps will still be burning—98 out of 100 will still be in service after a year in double shift plants (4000 hours).

For more information on what uniformity in G-E fluorescent lamps means to you write: General Electric Co., Large Lamp Dept. B9-11, Nela Park, Cleveland 12, O.

Progress Is Our Most Important Product

GENERAL ELECTRIC

WHAT DOES THIS MEAN TO YOU? If the published light output is 2500 lumens, your customers can be sure that the G-E lamps in the carton will *deliver* 2500 lumens. They *know* what the light output will be *before they open the carton!* This means confidence in the products you sell; repeat business from satisfied customers.

CONSISTENT ADVERTISING OF FACTS LIKE THIS MAKES YOUR SELLING JOB EASIER, MORE PROFITABLE

General Electric consistently advertises the money saving benefits of G-E fluorescent lamps—and this has helped create the overwhelming brand preference that exists for General Electric lamps. Carrying the impressive story of G-E fluorescent lamp facts this fall are such magazines as Fortune, Time, Newsweek, U. S. News & World Report, Wall Street Journal and Business Week. Factual advertisements like the one shown at left help pre-sell your customers on General Electric lamps.

BONUS OF LIGHT DRAMATIZED WITH THIS GIVE-AWAY G-E BULB SLEEVE

G-E fluorescent lamps give 30% more light than they did in 1950. This extra light in a carton of 24 such lamps equals the total light output of 79 100-watt incandescent bulbs. Ask your G-E salesman about these give-away 100-watt bulb sleeves and inserts to dramatize this selling point to your customers. General Electric Large Lamp Dept., Nela Park, Cleveland 12, Ohio.

Progress Is Our Most Important Product

GENERAL ELECTRIC

Emerson-Electric offers . a profitable motor department on a small investment

Low inventory—small space required to sell profitable line of Emerson Electric Multi-Duti motors.

Only the best-selling motor sizes and types are included in the Emerson Electric line of precision-built split-phase and capacitor-start motors for do-it-yourself, commercial and farm equipment! So dealers can offer a *complete* selection with a low inventory, small investment. Eighteen different models in ¼, ⅓, ½, ¾ and 1 H.P. The self-selling display illustrated conserves on valuable floor space, helps reduce selling costs even further.

Get the profit-building story of these quality-built motors produced by one of America's foremost motor manufacturers. Send for Catalog M-17. THE EMERSON ELECTRIC MFG. CO., ST. LOUIS 21, MISSOURI.

Emerson-Electric

OF ST. LOUIS—SINCE 1890

per cent of payroll or 39.2 cents per payroll hour.

Highest payments were made by companies in the Northeast, followed by the Western, East North Central and Southeastern regions.

The survey estimated that the grand total in fringe payments for all employers amounted to $36 billion. This compared with an estimate of $1.5 billion paid by American employers for such programs in 1929.

Dr. Emerson P. Schmidt, director of the Chamber's Economic Research department, which made the survey, pointed out that weekly wages and hourly rates are no longer accurate measures of either worker income or the labor costs of doing business.

During recent years, Dr. Schmidt stated, pensions, social security and a host of other benefits have substantially increased both the well-being of employees and the cost of doing business.

"Vacations, holidays, rest periods and other payments for time not worked have given workers increased compensation for each hour actually on the job," he declared. "They have at the same time increased the employer's cost for each hour of productive labor."

Results of the study of fringe benefits are available in book form from the Chamber's Economic Research department. Title of the publication is "Fringe Benefits 1955" and the cost of a single copy is one dollar.

Royal Electric Co. Is Purchased By IT&T

PAWTUCKET, R. I.—Royal Electric Co., Inc., with plants here and in Woonsocket, and its subsidiary, Electric Cords and Supply Co., Inc., of Los Angeles, Calif., have been purchased by International Telephone and Telegraph Corp. for an undisclosed sum.

The main plant in Pawtucket consists of 300,000-sq ft of factory space and employs 650 persons. A leased plant in Woonsocket has 80,000-sq ft and 150 employees.

IT&T has formed a new subsidiary company and retained the services of Robert Riesman, president, and Max Alperin, executive vice president, of Royal.

Essex Announces Merger

FORT WAYNE, IND.—The Essex Wire Corp. has announced the merger of Midland Wire Corp., Tiffin, Ohio, and Midland Wire div. of Essex, Birmingham, Ala., with its Paranite Wire and Cable div.

Midland's products, transmission and distribution cable, will be combined with the Paranite line of electrical wire and cable.

Never In Years a "Best Seller" Connector Like This!

The IDEAL

CRIMP CONNECTOR with the "Wrap-Cap"*

THE UNIQUE DIAPER-WRAP INSULATOR

A HIT AT EVERY SHOW!

A HIT WITH CONTRACTORS NOW USING IT!

A HIT FOR BUILDING NEW DISTRIBUTOR SALES!

We haven't seen anything like it in years . . . the way contractors and electricians have "gone" for the IDEAL Crimp Connector and its unique "Wrap-Cap" Insulator.

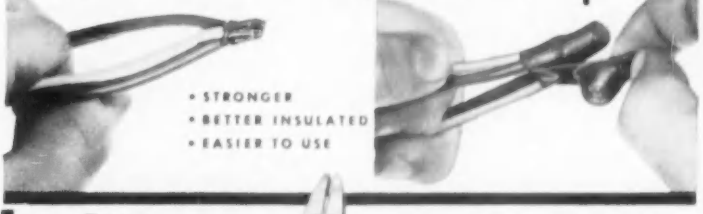
Show it to them and they buy it. Not just a few, but in volume lots and they come back for more, again and again. They like it because it's so simple, fast and easy to use — grips like a vise — gives perfect, pre-fabricated insulation around the joint and between the wires -- needs no *extra* tool to apply.

In fact, for a while demand far exceeded supply. Now, with greatly increased production facilities, IDEAL Crimp Connectors are available for quick delivery. Show them — talk them — order them — and watch them bring you more sales, *right now!*

*Patented, No. RE 23649 and other patents pending

JUST TWO PARTS

1 The Sleeve and 2 the "Wrap-Cap"



Both Sleeve and "Wrap-Cap" Insulator listed by the Underwriters' Laboratories, Inc. for general use (600 V.) in branch circuit and fixture wiring.

SOLD THROUGH AMERICA'S LEADING DISTRIBUTORS

PROFIT WITH THIS COMPANION SALES-MAKER

IDEAL ELECTRICIANS PLIERS

Thousands have already been sold to contractors and their men for crimping IDEAL Crimp Connectors and all around use. Designed to twist, hold and cut wire, burr conduit. A real buy for your customers, a real money-maker for you! Order a generous supply now and show them on every call.

IDEAL INDUSTRIES
1047 PARK AVE.,
SYCAMORE, ILLINOIS

PRODUCTS HAVE THE QUALITY THAT DOES A SELLING JOB FOR YOU

Repeat sales are one of the mainstays of any business. The answer to that is found in the sale of quality products. When you sell Quad quality you not only give your customers the very finest in reflectors but you establish yourself as a reliable source.

Quad engineering has built quality into Vapor-proof Reflectors and Fixtures in numerous ways. All moisture and non-combustible dust conditions have been provided for. These units, with heavy cast aluminum hoods, are made in vertical, horizontal and outlet box types. The reflectors are porcelain enameled acid-resisting white inside and green outside. They are listed as vapor-tight by Underwriters' Laboratories.

For quality proved indoor and outdoor industrial reflectors, depend on Quad.

Write for Catalog No. 10

QUADRANGLE MFG. CO.
32 S. PEORIA ST. CHICAGO 7, ILL.

City Planners Face 'Tide of Troubles'

RYE, N. Y.—Municipal planners of the nation were told recently that the problems now considered crucial are only "minor ripples" compared with the "tidal waves" of trouble to come.

Problems of traffic, mass transportation, housing, slum clearance, school construction and taxation were listed among those that will increasingly confront city planners on a mountainous scale.

Dr. Luther Gulick, president of the Institute of Public Administration and former City Administrator of New York, made the forecast. He told 300 persons attending a convention of the Governmental Research Association that "every large American city is obsolete."

A completely new pattern of human settlement, unlike anything now known in this country or Europe, must be developed, Dr. Gulick stated.

Stating that the population of the U. S. is likely to reach 300 million within the next fifty years, he forecast that as many as 80 to 90 per cent of these added citizens will work and make their homes in and around the metropolitan areas. He asserted that this growth of metropolitan communities would have a "staggering impact" on local and state governments.

Burndy Changes Name

NORWALK, CONN.—The name of the Burndy Engineering Co., Inc., has been changed to Burndy Corporation, according to Marvin Lee, executive vice president. The change reflects the broadening of the firm's activities, he stated.

The corporation, manufacturer of electrical connectors and installation tooling, recently reorganized its activities into two autonomous divisions. The U-I div. serves utilities and electrical construction and maintenance activities, while the Omaton div. serves the original equipment, aircraft and military markets.

Wakefield Offices Called 'Best Place to Work'

VERMILION, OHIO—The new general offices of The Wakefield Co., lighting fixture manufacturer, were recently declared a winner of the 1956 "Best Place to Work" award, presented annually for outstanding office design by Management Methods magazine.

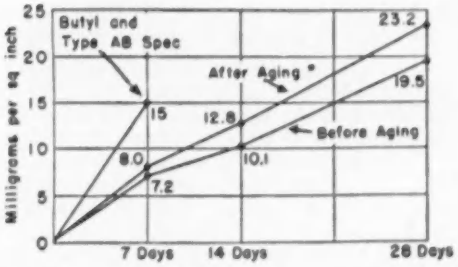
Entries were judged on the basis of their ability to stimulate employee and executive productivity and morale through well planned, well integrated quarters.

Amazing moisture resistance of Anaconda's Type AB butyl high-voltage insulation helps reduce failure due to moisture.

When you can't keep cable out of moisture

New insulation keeps moisture out of cable

Exceptional moisture resistance is provided by Anaconda Type AB butyl insulation.



RESULTS OF mechanical moisture absorption test show Type AB retains good moisture resistance even after aging.

Where rubber-type cable is installed in underground ducts or buried directly in the earth, the moisture-resistance properties of the *insulation* are vitally important.

Latest facts show *Anaconda's Type AB butyl high-voltage insulation absorbs far less moisture* than industry standards permit. For the mechanical moisture absorption test, the industry has regarded 15 milligrams increase in weight per square inch of exposed surface, after 7 days' immersion at 70C, as a criterion for satisfactory moisture resistance. Type AB easily meets that requirement—in fact, typical results show it absorbs less than 7.2 mg. in 7 days.

New Engineering Bulletin EB-27 gives you full details on performance of Type AB insulation in 15 Industry Specification tests. Ask the Man from Anaconda for your copy. Or write: Anaconda Wire & Cable Company, 25 Broadway, New York 4, N. Y.

Get all the facts on Anaconda butyl. Write today—

ASK THE MAN FROM ANACONDA®
—PIONEER IN BUTYL INSULATION

TRINE'S NEW
PILOT-LITE PUSH BUTTON

- FOR RINGING CHIMES BELLS, BUZZERS, ETC.
- NARROW
- SOLID BRASS
- HARMONIOUS DESIGN
- LOW PRICED
- BIG BAR electrically lighted (also available without light)

FEATURED ON TRINE'S NO. 1 PUSH BUTTON DISPLAY

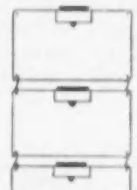
with FREE transformer that lights up pilot-lite push buttons

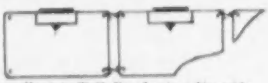
Trine's new "pilot-lite" available in two types:
No. 25715
for 6 to 16 volts
No. 25724
for 24 Volts
No special wiring required.

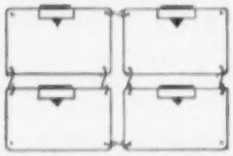
DEAL INCLUDES:
Display with 4 samples and introductory backup stock of assorted push buttons.

List Price **$19.75**

This versatile, expandable display is one of a series of new Trine Sectional Displays


Hang on Wall—New Sections Fit Underneath


Hang on Wall, New Sections Alongside


Hang on Wall, New Sections Fit Alongside and Underneath

Two Display Sections Joined to Form Triangle, Fastens Easily on Wall

Wire Easel for Counter Display

DISPLAY—Masonite, silk screened in full rich color, complete with wire easel for standing, four eyelets for hanging, S-hooks for joining to future sections. Free transformer with 6 ft. of wire cord ready to plug in.

Trine's Section No. 2 Display now available, too. Write for literature and prices.

TRINE MANUFACTURING CORP.
1430 FERRIS PLACE, NEW YORK 61, N. Y.

Wesco Will Spend $10 Million in Houston

HOUSTON, TEX.—Westinghouse Electric Supply Co. is in the process of expanding its facilities in this Texas city to the tune of $10 million.

Initial step in the program was the purchase of 6½ acres on Produce Row St. as the site of a new warehouse and office building. The warehouse and office will contain 60,000-sq ft of space, but expansion to an estimated 225,000-sq ft will be possible, according to Wilbur E. Burns, manager of the Houston branch.

The expansion program is necessary due to increased business and the growth of the Houston area, it was stated by Victor Kniss, president of Wesco. He indicated that Houston may be named the central warehouse point for Texas following the expansion of present facilities.

Wesco presently occupies an office and warehouse at 1903 Ruiz St. and another warehouse at 5730 Clinton Dr.

Sylvania Adds California Facilities

SAN FRANCISCO, CALIF.—Sylvania Electric Products, Inc., moved into two new distribution centers here and in Los Angeles early in October, more than doubling its warehousing and sales office space in California.

Northern California and adjacent western states will be served by a 79,000-sq ft distribution center at Burlingame, near San Francisco.

The Los Angeles facility, with 87,000-sq ft of space, will handle deliveries to southern California and nearby states. Each of the new distribution centers will have private rail spurs with space for four freight cars, unloading docks for six trucks and parking space for 75 cars.

Columbia Electric & Mfg. Opens Pasco Branch

PASCO, WASH.—Columbia Electric & Mfg. Co., with headquarters in Spokane, opened a new branch house here last month. The new distributing facility will serve northeastern Oregon, the Yakima valley, southeastern Washington and parts of the Columbia basin.

Branch manager is Jack Vertrees, who formerly was a representative for the company in the Tri-City area and the Columbia basin.

Maage E. LaCounte, executive vice president of Columbia Electric, pointed out that the new branch is the second expansion in the Tri-City area in recent months. The firm occupied new sales and service facilities in Spokane last October.

for time-saving, money-saving ONE-STOP SHOPPING...

GO GLOBE

GLOBE HAS EVERYTHING!

The Globe line is a *complete* line — for every decor, every room, every need — indoors or outdoors! The Globe line is a *big* line — all-inclusive in its styling, its materials, its finishes. It has all the answers to the most subtle variations of consumer preference, the most precise decorator requirements of the designer. At Globe, leader in lighting for 34 years, research into lighting trends is a continuous process. Globe watches, anticipates, *sets* trends in lighting fashion. Our production facilities are unsurpassed, our quality the standard of comparison! You can fill all your needs at Globe — the one-stop shopping center of the industry!

FOR A BRIGHTER PROFIT PICTURE, SWITCH TO

GLOBE

Visit our brand new Showroom, at the same address

16 East 40th Street, just off Fifth Avenue in New York City.

Write today for your copy of the new 44-page full color Globe catalog.

GLOBE LIGHTING PRODUCTS, INC.

1710 FLUSHING AVENUE • BROOKLYN, NEW YORK

Our 34th year • *Plants in New York and Los Angeles*

EEWA Show Gains Wide Industry Support

NEW YORK, N. Y.—The fourth National Electrical Industries Show, sponsored by the Eastern Electrical Wholesalers Assn. is gathering strong support from all phases of the industry, judged by latest reports.

Many new exhibitors will be represented, and more than 25 new products will be shown by the exhibitors already signed for the show, now listed at 110.

The EEWA show committee includes Joseph Kurzon, Joseph Kurzon, Inc.; Jack Horn, Williamsburg Electrical Supply Corp.; Henry Krug, Reliable Electrical Supply Co.; Leo Siegel, Hobb Electrical Supply, Inc.; Ben Rosenberg, Brite Electric Sales Corp.; Max Kamin, Shell Electrical Supply Corp., and William Kahn, Tudor Electrical Supply Co., Inc.

Show sponsors expect the event to be twice the size of the 1955 event. The "Live Better Electrically" theme will be emphasized throughout the show, and exhibitors will demonstrate how contractors can obtain a large share of the high dollar volume commanded by the electrical field.

The show is scheduled for April 8-11 next year at the 71st Regiment Armory in New York City.

Construction Activity Sets New Record

WASHINGTON, D. C. — During September, new construction activity exceeded $4.2 billion for the third consecutive month, rounding out the most active quarter on record, according to preliminary reports issued jointly by the U. S. Departments of Commerce and Labor.

The value of new work put in place in September brought the third quarter total to nearly $12.8 billion. This is three per cent higher than in the like period of 1955.

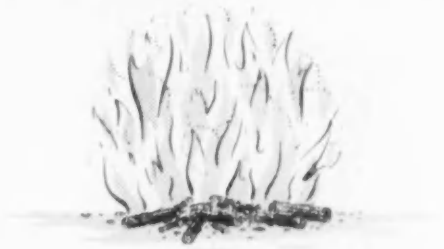
After adjustment for seasonal factors, the estimate shows new construction activity in the third quarter of 1956 at an annual rate of $44.5 billion, compared with actual outlays of $43 billion in 1955.

Private industrial building continued at a record-breaking rate in September. For the first time in any quarter, it exceeded the $800 million mark. Private residential building held steady at about $1.4 billion per month during the third quarter, but the $4.3 billion for the quarter was 10 per cent below the record set in 1955.

Providence Firm Moves

PROVIDENCE, R. I.—Providence Electric Co., wholesaling firm, plans to move into its newly acquired building during the early part of 1957.

Edwards lights a fire under "built-in" sales!

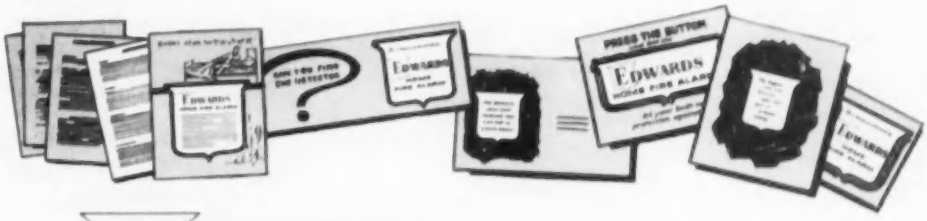


Edwards is building a fire under "built-in" Home Fire Alarms that will pay off in added sales for you! Edwards is now giving builders not only a powerful selling tool . . . but is backing it up with a complete new merchandising plan. The Edwards Home Fire Alarm is an exciting sales feature and the new promotion kit helps builders make the most of it!

Just see what the builder gets! First, there's the Home Fire Alarm itself. It's truly the most important low-cost sales feature that can be put in a new home. It's a complete permanent fire warning system. Yet it can be installed for under $50 depending on local conditions. And, if the builder plans ahead, he may have his Edwards Home Fire Alarm included in the FHA mortgage.

To merchandise this valuable selling point, Edwards backs the builder up with an entire promotion kit! There's identification material for the model home front, eye-catching signs for the interior and handsome, colorful, free folders. Plus a whole package of publicity stories to keep the builder in the public eye! Speeches and releases for press, radio and TV are all calculated to get the maximum publicity. (Also available is a colorful display demonstrator for on-the-spot demonstrations.)

Order now and get this free Edwards Merchandising Kit for you and your customers. Fill out the coupon below and send it in *today!*



EDWARDS *Specialists in Signaling since 1872*

DESIGN • DEVELOPMENT • MANUFACTURE

DEPARTMENT EW-11
EDWARDS COMPANY, INC.
NORWALK, CONNECTICUT

Please send me_____copies of the Edwards Home Fire Alarm Merchandising Kit.

Name_____

Company_____

Address_____

City_____ State_____

One dependable quality

Monarch
RENEWABLE FUSES

From raw material to final inspection every part is MADE *and* ASSEMBLED *under our own* QUALITY CONTROL

STRATEGICALLY LOCATED
WAREHOUSE STOCKS

Monarch
ELECTRIC CORPORATION
Jamestown, New York

NEMA Booklet Charts Code Revisions

NEW YORK, N. Y.—An "Analysis of the 1956 Revision of the National Electrical Code" has just been compiled and published by the National Electrical Manufacturers Assn.

The NEMA booklet details all changes made since the 1953 edition and eliminates the need for making comparisons between the new and old documents. In cases where the reason for the revision may not be obvious from the text of the revision, a brief explanation is given in the analysis.

While Code changes this year are not as extensive as in some past revisions, according to NEMA, there have been a number of important changes, including such items as new tables for aluminum couductors, new definitions of service entrance conductors and further extension of the required usage of grounding type receptacles for portable equipment.

Electrical Trade Show Space Going Fast

WASHINGTON, D. C.—William G. Hills, managing director of the first Electrical Trade Conference and Exposition scheduled for Feb. 12-14, has announced that nearly half of the available exhibit space has already been reserved.

The event, to be held at the Shoreham Hotel, will officially launch National Electrical Week. Merrill E. Skinner, chairman of NEW and vice president of the Union Electric Co. of Missouri, will preside at the opening day's luncheon.

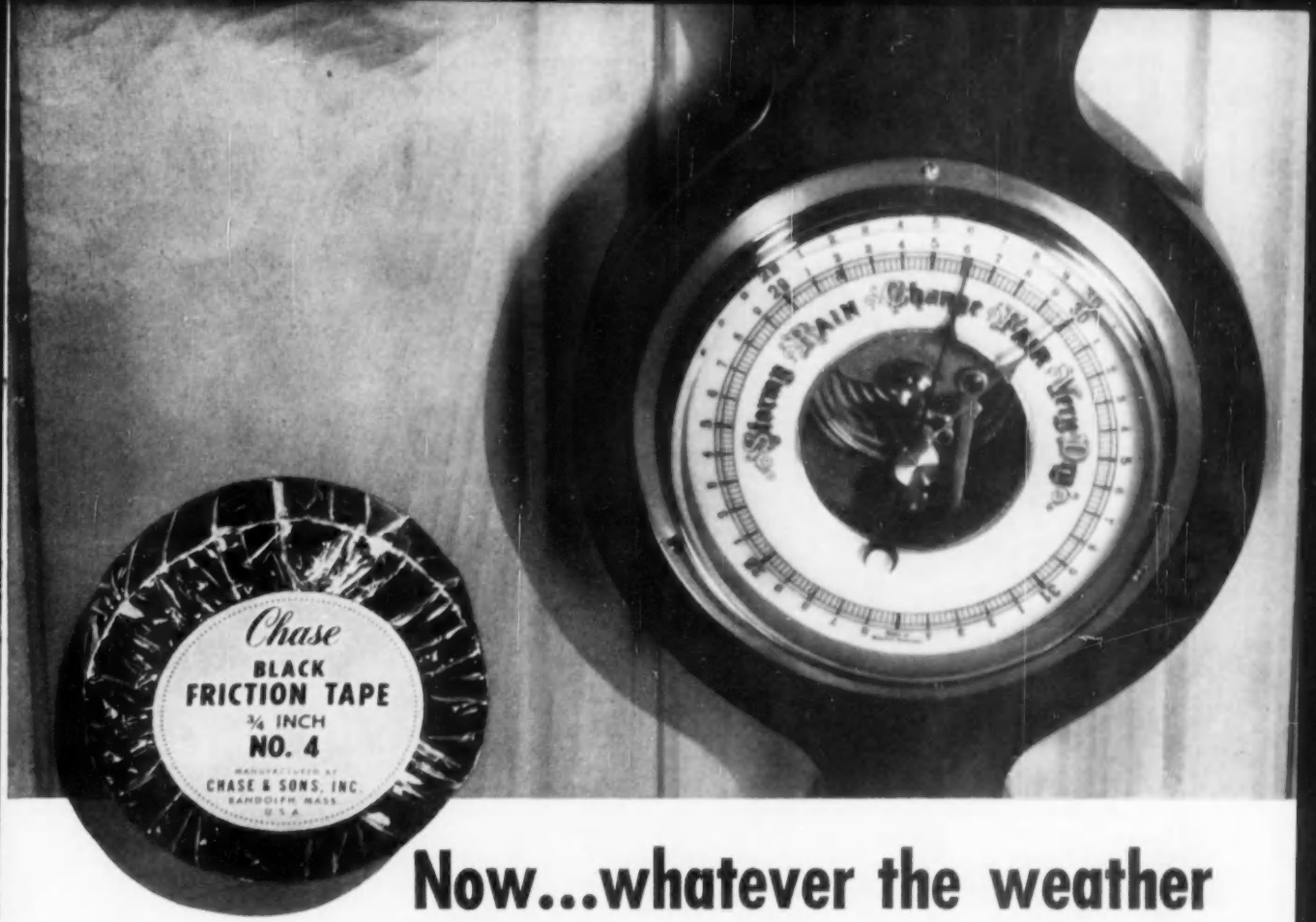
The electrical trade show will be presented by the Electric Institute of Washington in an effort to give manufacturers an opportunity to showcase their products before one of the most highly selective audiences in the world, according to the management.

FHA Rules Will Help Clean Slums

WASHINGTON, D. C.—The government's drive to clean out the nation's slums and rebuild in older urban areas will be given a lift by new Federal Housing Administration regulations.

Norman P. Mason, FHA commissioner, said the new rules carry out the will of Congress as expressed by the Housing Act of 1956 by making possible increased "profit and risk" allowances for the builders of urban and renewal housing projects financed by privately advanced, federally insured mortgage loans.

At the same time, Mason said, the rules give assurance of adequate equity investment by sponsors of the projects.



Now...whatever the weather CHASE TAPES stay *fresher* longer!

New Saran Wrap* packaging keeps every roll "factory fresh" . . . eliminates storage problems

Here's how Chase's new Saran Wrap tape packaging pays off in satisfied customers . . . fewer handling problems and extra sales for you.

Wrapped-in freshness! Unlike ordinary transparent packaging material, Saran Wrap seals in Chase Tapes against moisture . . . helps to prevent harmful peeling, drying out or raveling . . . assures perfect adhesive qualities in every roll you sell.

Longer shelf life! Because every roll stays fresher longer, Saran-Wrapped Chase Tapes eliminate storage problems . . . permit full stocking to meet your customers' complete requirements at all times.

Greater sales appeal! Sparkling, transparent Saran Wrap molds itself to every roll of Chase Tape to form a neat, eye-appealing package . . . adds new appeal to a sales-proven product.

Cash in on these exclusive sales advantages now. Order a profit-making supply of fresher, faster-selling Chase Electrical Tapes today! Chase & Sons, Inc., 26 Spruce Street, North Quincy, Mass.

**Trademark of The Dow Chemical Company for its vinylidene chloride copolymer film.*

CHASE & SONS INC.

North Quincy, Massachusetts

CABLE INSULATING TAPE • CABLE BINDING TAPE
CABLE JACKET TAPE • NEOPRENE SPLICING TAPE
FRICTION, RUBBER AND PLASTIC TAPE
LAMINATED AND REINFORCED INSULATION

MULTI SPARLITES

The complete line of Quality Lampholders for PROJECTOR and REFLECTOR LAMPS

● Customer satisfaction is sure with this line of lighting equipment by Multi, a name known for quality for over 35 years.

Send for bulletin 555 for complete data.

Multi special catalog #95i on RLM Fluorescent, Incandescent Fixtures, Floodlights and Vapor Proofs for Schools and Industry will be included upon your request.

Address Dept. ROK.

MULTI ELECTRIC MFG. INC.
4223 W. LAKE ST. CHICAGO 24

As We Went to Press . . .

Arthur W. Hooper, executive director of NAED, told the Lake Michigan Club meeting in French Lick, Ind., that the health of the electrical industry depends on a choice between economical and cheap distribution.

"Economical distribution is efficient distribution . . . that recognizes its obligations . . . and carries out its responsibilities . . ." Cheap distribution, on the other hand, "is characterized as such because it lacks loyalty, quality, competence and responsibility," he declared. **Note: Look for a complete report of the Lake Michigan Club meeting—including major speeches—next month.**

Harvey Hubbell Expands Facilities

BRIDGEPORT, CONN.—Construction of a new four-story building has been started by Harvey Hubbell, Inc. The structure, adjoining Hubbell's main building, will add 60,000-sq ft of space to existing facilities and will bring total manufacturing, office and warehousing space to more than 300,000-sq ft.

Harvey Hubbell, president of the company, and son of the founder, said that "the continuing increase in demand for the company's products has severely taxed our manufacturing facilities." The expected volume for this year—due to normal growth of the industry plus that expected from the introduction of several new products—necessitated the manufacturing space addition.

Telectro Adds Space

LONG ISLAND CITY, N. Y.—Telectro Industries Corp., manufacturer of electrical and electronic equipment, has added 20,000-sq ft of manufacturing space and is now the sole occupant of the building located at 35-16 37th St.

Additional space will be made available to the engineering staff and laboratories for development of components and production techniques.

GE Opens Anchorage Alaska, Branch

ANCHORAGE, ALASKA — General Electric Co. has opened its first Alaskan facility here, a branch supply and apparatus house of General Electric Supply Co.

George H. Smith, formerly a lamp and lighting specialist at Portland and Medford, Ore., has been appointed manager of the new facility, under O. B. Hubenthal, regional manager.

"A check for a sale I didn't make?"

"Thanks for the check covering the direct sale made to Tishman Realty Company. It's wonderful to know that there are some manufacturers who still believe strongly in a wholesalers policy and back the distributor completely."

Joseph Kurzon

JOSEPH KURZON, INC.
NEW YORK, N. Y.

Any Amprobe sold anywhere makes a profit for a jobber somewhere. This is just one of the ways Amprobe puts more money in your pocket. Only Amprobe backs you up with a five point JOBBER PROFIT PROGRAM: 1) 100% Jobber Protection 2) Sales Training 3) Saturation Advertising 4) Sales Incentives 5) Brand Demand

You Can Count On

AMPROBE

For 100% Jobber Protection

AMPROBE is a division of Pyramid Instrument Corporation, 630 Merrick Road, Lynbrook, New York, manufacturer of REMCON low-voltage wiring devices.

REWIRE Better on the SURFACE

with

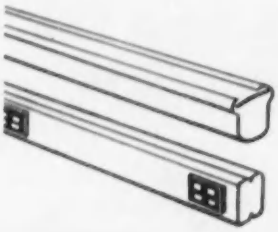
WIREMOLD

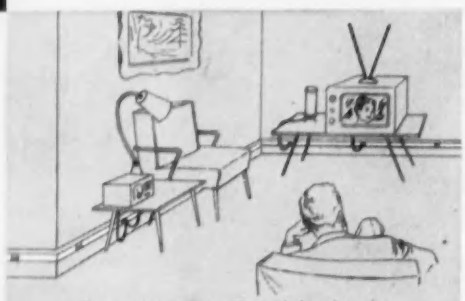
and

PLUGMOLD

safe

neat

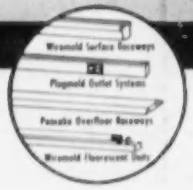




Plugmold blends neatly with baseboard.

Wiremold carries power to room air conditioners.

Outlets for showroom spotlights and electrical appliances.



The BEST WAY to wire MOST buildings

The ONLY WAY to wire MANY buildings

- You can take advantage of the big rewiring market by using Wiremold and Plugmold . . . the *modern* way to wire and rewire.
- You can *pre-plan* every wiring job and follow the plan *easier* with *pre-engineered* Wiremold and Plugmold.
- You can do *more jobs,* you can control installation costs and *make more profit* on *every* job with Wiremold and Plugmold.
- You can build and keep *more* customer satisfaction with Wiremold and Plugmold.
- Wiremold and Plugmold meet all wiring code requirements.

For further information Write Dept. H-11

The WIREMOLD Company

HARTFORD 10, CONNECTICUT

Continued from page 9

sun lighting), skip-a-day (for eliminating weekend operation) and 7-day (for varied daily schedules on one dial).

Thermostats

Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.

Two new line voltage thermostats are said to eliminate the uncomfortable "peaks and valleys" in electric heating. Company engineers claim the fast cycling T-40 (up to 20 times per hour) is ideal for low-mass, quick heating-quick cooling units. It is horizontally mounted and responsive to as little as 0.4 deg of temperature change. The vertically mounted T-41 (cycling only three to six times per hour) is better suited for large-mass, slow heating-slow cooling systems such as are used in ceiling and floor cable heating applications. Its operating differential is one deg. Both instruments operate without supplemental relays or transformers, and feature large vents for accurate sampling of air.

Tape

Permacel Tape Corp., New Brunswick, N. J.

A new Teflon film tape, designated Permacel 421, is designed especially for application where Class H electrical insulation and resistance to abrasion are required. It also acts as a barrier or protective coating against highly reactive chemicals and solutions. The Teflon film is backed with a pressure sensitive and heat curing silicone adhesive. The tape is available in widths from ¼-in to 6-in and in rolls of 36-ft. Testing of Permacel 421 was conducted in accordance with ASTM D-100-55T.

Transformers

General Electric Co., Outdoor Lighting dept., Hendersonville, N. C.

Outstanding features of a new line of customized small transformers, according to company engineers, are the universal-type mounting for both aerial and pole-base mounting, low cost reliable terminal construction, aluminum casing and rubber-covered leads.

Connectors

Burndy Corporation, Norwalk, Conn.

To meet demand for compression connectors accommodating larger conductors used in industrial type service drops, manufacturer of "Linkits" has added sizes for 2/0 through 4/0 copper, aluminum and ACSR to its line.

CALENDAR OF EVENTS

National Electrical Manufacturers Assn.
30th Annual Meeting
Traymore Hotel
Atlantic City, N. J.
November 12-16
Meetings, speakers, awards

International Home Furnishings Market
The Merchandise Mart
Chicago, Ill.
January 7-18, 1957
Exhibits

National Housewares Manufacturers Assn.
27th National Exhibit
Navy Pier and Drill Hall
Chicago, Ill.
January 17-24, 1957
Exhibits

Building Materials Exposition
National Assn. of Home Builders
Chicago Coliseum, Conrad Hilton and Statler Hotels
Chicago, Ill.
January 20-24, 1957
Exhibits, forums

American Institute of Electrical Engineers
Winter General Meeting
Hotel Statler
New York, N. Y.
January 21-25, 1957
Speakers, papers

Southeastern Electrical Wholesalers Assn.
7th Annual "Industry Day" Meeting
Biltmore Hotel
Atlanta, Ga.
January 24-25, 1957
Speakers, panels, meetings

Plant Maintenance & Engineering Show
Public Auditorium
Cleveland, Ohio
January 28-31, 1957
Exhibits, conferences

National Electrical Week
ARI, EEI, IAEI, IAEL, IBEW, NARDA, NAED, NECA, NEMA, NISA
February 10-16, 1957

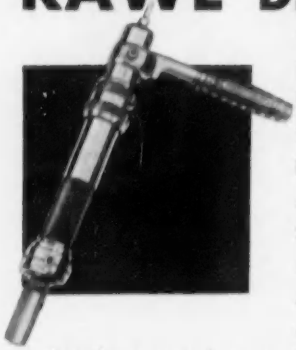
Ventilating, Electric Heating Exposition
Electric Institute of Washington
Sheraton-Park Hotel
Washington, D. C.
February 8-10, 1957
Exhibits, luncheon, speakers

Electrical Industry-Conference Show
Electric Institute of Washington
Shoreham Hotel
Washington, D. C.
February 12-14, 1957
Exhibits, conferences

NOW increase your profits with these.... 3 NEW RAWL PRODUCTS

When you make money — we make it too . . . These latest additions to our line, we believe, enable you and your salesmen to get more sales dollar volume out of more anchoring sales opportunities . . .

RAWL DRILL-HAMMER



CONVERTS AN ELECTRIC DRILL, ECONOMICALLY, INTO A DEPENDABLE, FAST, POWER HAMMER. MORE THAN DOUBLES THE VALUE OF YOUR ¼" ELECTRIC DRILL. Drill quickly into softest or hardest masonry or stone with inexpensive Rawldrills. Saves money — eliminates necessity for using expensive carbide-tipped drills. Automatic clutch starts or stops action automatically when the drill point touches or is taken away from work. "Light", "medium" or "heavy" blows are selected by turning the collar. RAWLDRILLS TO FIT.

RAWL CALK-IN

Improved machine screw anchor. Sleeve is precision-cast of an exclusive Rawl lead alloy, especially developed for masonry anchors. It's just soft enough for easy, complete caulking and hard enough for tremendous holding power. Sizes up to ⅝".

RAWL SCRU-LEAD

The most holding power possible with any lead screw anchor. Exclusive Rawl lead alloy used for easy installation and huge holding power. The top flare out speeds up anchoring time because screws can be inserted quickly. Use for either wood screws or sheet metal screws.

Write for free new dimensional wall chart and catalog.

International Heating, Air-Conditioning Exposition
International Amphitheatre
Chicago, Ill.
February 25-March 1, 1957
Exhibits

National Electrical Manufacturers Assn.
Edgewater Beach Hotel
Chicago, Ill.
March 11-14, 1957
Meetings, speakers

Fourth National Electrical Industries Show
Eastern Electrical Wholesalers Assn.
71st Regiment Armory
New York, N. Y.
April 8-11, 1957
Exhibits

Electrical Industry Trade Show
Electric Assn. of Kansas City
Exhibition Hall, Municipal Auditorium
Kansas City, Mo.
April 16-18, 1957
Exhibits, lectures, demonstrations

Illuminating Engineering Society
Great Lakes Regional Technical Conference
Pantlind Hotel
Grand Rapids, Mich.
May 13-14, 1957
Speakers, papers

LEGAL HOLIDAYS

NOVEMBER
6 All states—Election Day.
11 All states—Veterans' Day. (Optional for banks to remain closed in Colorado.)
22 All states—Thanksgiving Day.

DECEMBER
25 All states—Christmas Day.

Sources: Manufacturers Trust Co., New York, N.Y.: Domestic Distribution Dept., Chamber of Commerce of the United States, Washington, D. C.

OBITUARIES

Thomas J. Lackner

Thomas J. Lackner, vice president and treasurer of Accurate Manufacturing Co., Garfield, N. J. died Oct. 6 at the age of 50. He had been with the firm, manufacturer of electrical tape, for 22 years. Previously he was employed by the Bell Laboratories of American Telephone & Telegraph Co. for 12 years. He was born in Paterson, N. J., and lived in Clifton, N. J. at the time of his death. He is survived by his wife and a son.

William H. Knight is now purchasing manager of **Virginian Electric, Inc.,** Charleston, W.Va. He has been purchasing agent and supply dept. sales manager for the company.

Robert C. Zinsmeister is the new president of **Pittsburgh Reflector Co.,** Pittsburgh, Pa. Prior to his recent appointment by the board of directors, he was plant manager of the company's Irwin, Pa. plant. He is a member of IES, the Western Pa. Electric League and other lighting groups.

E. W. Gutgsell has been promoted by Cory Corp. to the post of assistant national sales manager for consumer products.

Carter L. Redd has been elected commercial vice president for the southeastern district of the **General Electric Co.** He has been district apparatus sales manager in Atlanta for the past 11 years. He succeeds **Claud J. Hendon** who is retiring due to illness.

Wilbur H. Peter, Jr. has been elected a vice president of **Square D Co.** and will become division manager of the Electric Controller div. in Cleveland.

Robert D. Burns, Jr., has been promoted to assistant director of merchandising for all divisions of Thomas Industries, Inc., Louisville, Ky. **John Kanies** is now assistant to the sales manager of the firm's lighting fixture sales dept.

Harold W. Schaefer is now vice president and general manager of the **Philco Corp.** appliance div.; and **Larry F. Hardy** has assumed a new position as vice president in charge of Philco's consumer products divisions.

Walter A. Scrivens has been named vice president and general manager of the **Auth Electric Co., Inc.,** Long Island City, N.Y. He will have complete responsibility for all manufacturing facilities as well as all sales functions.

Arthur J. Gambs, Jr., has joined **Day-Brite Lighting, Inc.,** St. Louis, Mo., as sales promotion manager. He formerly was manager-inside construction sales for Graybar Electric Co., Cincinnati, Ohio.

Edward H. R. Blitzer has been elected president of **Lightolier, Inc,** Jersey City, N.J., succeeding his father, M. D. Blitzer, who will continue as chairman of the board. The new president was one of the founders of the American Home Lighting Institute.

for Better and Easier—
STORE FRONT LIGHTING INSTALLATIONS

Revere ELECTRIC MFG. CO. CHICAGO, ILL. WALL and ROOF BRACKETS

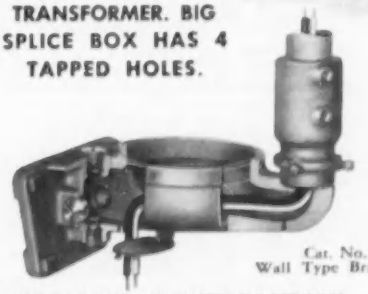
(PATENTS PENDING)

EASIEST TO WIRE AND INSTALL

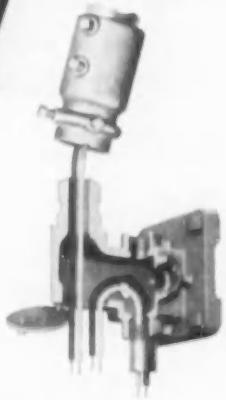
ARM AND LUMINAIRE WIRED IN ADVANCE. FITTER SLIPS OVER POST AND YOUR HANDS ARE FREE.

NOTE HOW WIRES FROM ASSEMBLED ARM AND LUMINAIRE RUN STRAIGHT THROUGH. "X" TYPE SPLICE BOX PERMITS CONNECTIONS FROM TOP, BOTTOM AND SIDES.

AMPLE ROOM BELOW TRANSFORMER. BIG SPLICE BOX HAS 4 TAPPED HOLES.



Cat. No. 861
Wall Type Bracket Only



Cat. No. 860
Wall Type Bracket Only.

NOTE LARGE, CURVED RACEWAY WHICH PERMITS EASY FISHING.

Roof type mounted with Revere Mercury Luminaire. Bracket shown with transformer. Also available without transformer.

Wall type mounted with Revere "Endoval" Mercury Luminaire. Bracket also available with provision for transformer.

Revere scores again with this outstanding series of Wall and Roof Brackets. They are Superior in Design — Quality and Performance . . . of Heavy-Duty Cast Aluminum Construction and save hours in Installation time through simplified provision for wiring. Available with 1¼ inch aluminum arms or with hot-dip galvanized steel arms for mounting Revere Mercury or Incandescent Luminaires. Arms are locked in position with heavy cup-point screws. Roof type arm swings over parapet. Wall type swings back to wall for safe, easy servicing.

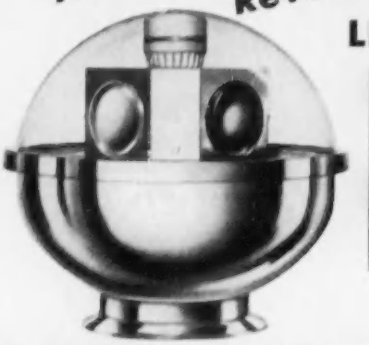
Write for Catalog Data and Prices

REVERE ELECTRIC MFG. CO. • 6009-17 BROADWAY • CHICAGO 40, ILL.
Available in Canada thru Curtis Lighting, Ltd., Leaside, Toronto, Ontario

THE ONLY COMPLETE LINE OF LUMINAIRES - FLOODLIGHTS AND POLES FOR STREET - SPORTS AIRPORT - SERVICE STATION - OUTDOOR THEATRE - MARINE AND INDUSTRIAL LIGHTING

Amazing New Revolving **360°**

LIGHT SENSATION



NEW TRIPPE
MULTICOLOR
HI-BALL
MARK III

80 BRILLIANT FLASHES A MINUTE—EACH A DIFFERENT COLOR

HIGH-POWERED ATTENTION GETTER for:

- ★ MOTELS
- ★ RESTAURANTS
- ★ DRIVE-IN THEATRES
- ★ TAVERNS
- ★ GOLF RANGES
- ★ FACTORIES
- ★ DOCKS
- ★ CAR LOTS, ETC.

Fascinating just to watch it! Can increase trade 25% or more the day it's installed. Covers 360° like an airplane beacon with a different colored flash each ¾ of a second. Does not conflict with traffic signals. Made like a fine watch to run trouble free indefinitely from 40° below zero to hottest days. Long life 60-watt bulb burns over 2500 hours . . . silent!

WIRE or WRITE today for Catalog and Distributor Costs

TRIPPE MANUFACTURING CO. Dept. X

133 N. Jefferson Street, Chicago 6, Illinois

YOU CAN REST ASSURED

—YOU'VE DONE THE BEST FOR THE CUSTOMER with PIERCE FUSES

Every plant wants fuses that give positive protection to equipment — that DON'T cut into production with "false-alarm" blows under SAFE overload — that outlast ordinary fuses 6 to 8 times — with links replaceable in SECONDS with only a screwdriver. We invite you to inspect the strong tubular bridge — the screen venting — the foolproof clip contact and alignment — the quality machined construction — that make Pierce Balanced Lag Renewable Fuses so popular with contractors, users and distributors!

MAIL COUPON TODAY

PIERCE RENEWABLE FUSES, INC., Leicester, N. Y.

Gentlemen:

Please send details on the Pierce active stock plan. Include a sample fuse for comparison with any other make.

Name .....

Company .....

Address .....

City ..... State .....

RICHARD W. NOEL was recently appointed national sales manager of Electrical Fittings Corp., Woodside, N. Y. Previously he was affiliated with Electrical Agencies, New York City. Before that he represented manufacturers in the New York-New Jersey metropolitan area.

Harold J. Vorzimer, vice president of **Federal Pacific Electric Co.,** Newark, N.J., has been granted a leave of absence so that he may assume the duties of director, electrical equipment section, Business and Defense Services Administration, Department of Commerce.

Arthur W. Rista has joined **Accurate Mfg. Co.,** Garfield, N.J. as assistant sales manager. He served 37 years with U.S. Rubber Co., most recently as tape commodity manager. **Joseph J. Pierro** has also joined Accurate as research chemist.

Frank M. Tait, chairman of the board of the **Tait Manufacturing Co.** and the **Dayton Power and Light Co.,** Dayton, Ohio, has been made a fellow of the Royal Society of Arts, established in London in 1754 for "the encouragement of arts, manufactures and commerce."

Nat Klein of N. Klein Associates has been appointed sales manager for **Good Mfg. Co.,** Chicago, Ill., manufacturer of commercial and industrial lighting equipment. Mr. Klein was formerly associated with Hyland Electrical Supply Co., and All-Bright Electric Products Co.

V. A. Elmblad has been named southwestern district manager for **Graybar Electric Co.** with headquarters in Dallas, Tex. He has been with the distributing organization over 35 years, having served as salesman, branch manager and district manager.

Nelson Havill has been appointed field sales manager for **Potter & Brumfield, Inc.,** Princeton, Ind. He will be in direct charge of sales offices in Camden, N. J., Washington, D. C., Chicago, and Princeton. He will also handle all industrial marketing procedures.

SALES REPRESENTATIVES

Induction Motors Corp., Westbury, N. Y., announced appointment of the Frank W. Taylor Co., DeWitt, N. Y., as sales representative for the firm's line of ac and dc subfractional, servo and gear motors, fans, blowers and dynamotors. The Taylor organization will cover upper New York state.

Pittsburgh Standard Conduit Co., Pittsburgh, Pa., has appointed The Gaer Sales Co., 1246 Galapago St., Denver, Colo. as its agent for the territory including Colorado, western Nebraska and eastern Wyoming. Glenn B. Gaer, who heads company operations, is past chairman of the Rocky Mountain section of IES.

Pass & Seymour, Inc., Syracuse, N. Y., has appointed Delbert P. Stuart its sales representative for Albany and eastern New York state. He will work from his home, 13 Schoolcraft St., Guilderland, N. Y.

Globe Lighting Products, Inc., Los Angeles, Calif., has appointed Gaines Co., with headquarters in Kansas City, Mo., as its sales and service representative in the Kansas-West Missouri area for its commercial and industrial lighting equipment.

The Miller Co., Meriden, Conn., announces the addition of George Patterson as sales representative for the Memphis territory, including Memphis and Jackson, Tenn.; Paducah, Ky., and Little Rock, Ark. Before joining The Miller Co., he was a supply salesman for Wesco, Knoxville, Tenn. and prior to that for Gesco there. Charles C. Wetmore has been named sales representative for the Worcester-Providence territory with headquarters in Worcester, Mass.

ASSOCIATION NEWS

CHICAGO—In two half-day conferences, the Electric Association plans to acquaint electrical contractors in the Chicago area with current promotions in the commercial, industrial and residential phases of wiring. Contractors in the commercial and industrial fields will be invited to the Nov. 8 session. Topics will include automation, productive maintenance, process heating, industrial lighting, as well as increased electrical usage demanding the rewiring of commercial and apartment buildings. On Nov. 15 the residential contractors will hear about the Electric Association's program and other industry campaigns to promote better wiring in both new homes and exist-

ILSCO

THE BIG LUG OF INDUSTRY

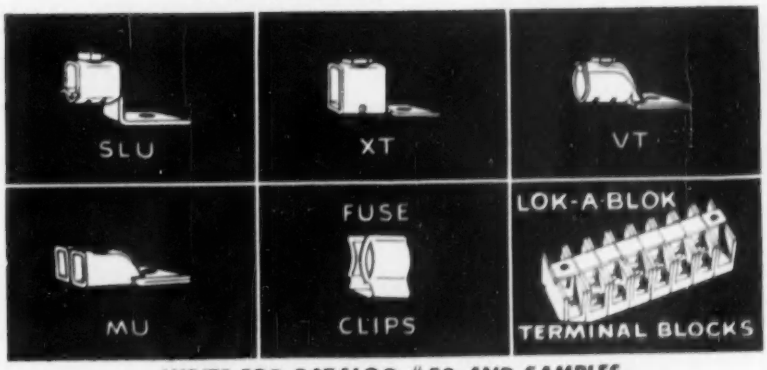
For Superior Quality
√ Check these features

MODEL LO

- ☐ Pure copper, 100% conductivity
- ☐ Wide wire range—re-usable
- ☐ U/L-CSA Approved
- ☐ Compact—rugged
- ☐ Advanced designing
- ☐ Sound engineering
- ☐ Speedy installation
- ☐ Cool operation—takes overload
- ☐ No special tools needed
- ☐ All screws wax-treated for better clamping

ALL THESE FEATURES AT LOW COST

Your √ Test Will Prove ILSCO Superiority Over Cast Or Any Other Type Lugs



WRITE FOR CATALOG #50 AND SAMPLES

ILSCO CORPORATION

5746 MARIEMONT AVE. CINCINNATI 27, OHIO

MARVEL *ELECTRIC WIRE* **MACHINES**

Model No. 3

A heavy duty wire measuring machine

—MEASURES, REWINDS AND CUTS.

Shipped set up, crated-shipping weight 195#

$94.00 NET FOB FACTORY

Model No. 3 is specially designed for use where heavy volume requires exceptionally rugged construction. Handles all types of electric wire from 1/8" through 1" diameter. Payoff turntable has 34" spread—400# capacity. Collapsible takeup reel rewinds coils up to 20" outside diameter, 7 1/4" core, 9" width. Floor space 4'6" x 2'. Equipped with 2000' measuring device.

10 MODELS to choose from Send for fully descriptive catalog.

MARVEL Rack Mfg. Co. Inc.

24 North 1st Street, Minneapolis, Minn.

XCELITE *Hand Tools* PREFERRED BY THE EXPERTS

NEW KIT

MAKES "99" PARTS REPLACEMENT EASY AND FAST!

No. 699 Kit

It's a compact, attractive display box that gives you complete 99-PR backup stock for immediate replacement of any "99" parts or making up custom kits! The 699 Replacement Kit fills the need created by the hundreds of thousands of "99" kits in use—contains six each of every part in the "99" including the plastic kits, 99-38 1/8"-3/8" reamer, the new XCELITE 1/2" 99-39 reamers with the new twist—plus a set of 99 handles and 99 Junior handles. No more need to break up sets in stock—with the 699, you can make up sets!

XCELITE, INCORPORATED
Dept. A, Orchard Park, N. Y.

For Originality LOOK TO XCELITE

ing residences. These meetings will be open to all electrical contractors, whether members of the association or not.

NEW ORLEANS—A committee has been appointed to nominate a new slate of officers for the Electric Assn. of New Orleans. The committee includes W. A. Barnes, chairman, E. N. Avegno, Ben Habans and C. Espy Reed, ex-officio. Election of officers will be held Dec. 17 at the time of the annual association Christmas party.

KANSAS CITY, MO.—Don D. Davis, president of the Electric Assn. of Kansas City recently announced plans for the association to sponsor an Industrial Trade Show, scheduled for April 16-18, 1957, in the exhibition hall of Municipal Auditorium. The show will be patterned after highly successful Electric Assn. shows of recent years and will be limited to exhibitors of supplies, apparatus and lighting from member firms of the association. Early last month the Electric Assn. presented a dramatic program entitled "Electrical Industry on Parade" before more than 450 persons attending a Chamber of Commerce luncheon.

OMAHA—The Nebraska-Iowa Electrical Council's first commercial and industrial lighting school is now in progress. The eight-week course began on Sept. 18 and is jointly sponsored by the Electrical Council and the Cornhusker Chapter of IES. The instructors will make use of material prepared by the National Lighting Bureau.

DENVER — Contractor members of the Rocky Mountain Electrical League have formed an Electric Modernization Bureau for the purpose of improving residential wiring systems. They intend to make the Bureau's services known to the public through advertising and promotion. The fall convention of the League was held Oct. 7-10 at the Broadmoor Hotel.

WASHINGTON, D. C. — Now through Nov. 1 will see the windup of the "Guaranteed Delight" promotion carried on by electric laundry equipment dealers, distributors and manufacturers who are members of the Electric Institute of Washington. The pitch to the purchaser is, "Buy an electric dryer—you'll be delighted or your purchase price will be refunded."

Over $20,000 is being spent to bring sales of electric dryers to an all time high. Additional features of the promotion are a guessing contest for the public and awards for salesmen.

NEW LITERATURE

Circuit Breakers—A completely revised bulletin covering general purpose circuit breakers of the hydraulic-magnetic type has been released. Data on basic design considerations, voltage drop curves, interrupting capacities and similar information is also covered in tabular or graphic form. Superimposed wiring diagrams on dimensional drawings give a graphic representation of all special circuit forms. Wiring is shown in color for clarity. New bulletin No. 3411 is available from Heinemann Electric Co., Trenton 2, N. J.

Lighting Design—A new 48-page booklet designed as a basic reference for designers of interior lighting installations has been announced. Called "Footcandle Levels and Interior Lighting Design Data," the manual contains a section which describes the footcandle levels required for each group of seeing tasks. Another chapter describes various ways of calculating the quantity of light for a given area. A series of tables minimizes the mathematical calculations the architect or designer must make. Copies of the manual, A-4854, may be obtained from Westinghouse Lamp div., Bloomfield, N. J.

Industrial Lighting—New 52-page catalog features the newest fixtures for mercury high bay lighting, shows complete line of industrial and commercial incandescent lighting fixtures and materials for electrical construction. Includes reflectors, vaportight units, floodlights, etc. Catalog No. 10 is available from The Spero Electric Corp., 20500 St. Clair Ave., Cleveland, Ohio.

Electrical Tapes—A brochure describing the qualities and applications of the manufacturer's line of plastic pressure-sensitive electrical tapes has just been prepared. The illustrated brochure presents the features which, it is claimed, make the tapes resistant to the four major causes of insulation failure—moisture, surface contamination, excessive heat and discharge of surface electricity. Copies may be obtained by writing to Dept. T-2, Permacel Tape Corp., New Brunswick, N. J.

Ballasts—Dramatic photographs of production and installation of fluorescent ballasts, plus complete electrical and mechanical specifications of the line, combine to make up a highly interesting and informative brochure. Bulletin FL-217 is published by Sola Electric Co., 4633 W. 16th St., Chicago, Ill.

BURGESS Your best bet for **SALES!**

Sales and profits that hop up and stay up are yours with the complete line of Burgess batteries and flashlights. Heavy consumer advertising, a strong family identity, and sparkling new vanders do your selling for you—fast, certain, with profit. There is a Burgess flashlight, battery, penlight, pocketlight for every need, and Burgess line of factory-guaranteed, brightly-styled batteries is known the world over. Burgess is your customer's better buy!

POWERFUL CONSUMER ADS APPEAR IN

- Saturday Evening Post
- Life
- Sports Illustrated
- Farm Journal
- True
- Outdoor Life
- Colliers

NEW *Radar-Lite*

A smash success since it was first introduced a year ago. The Radar-Lite is a rugged, practical emergency light at one-third the cost of its heavy-duty ancestors. It has a 40,000 candlepower sealed beam lamp and a flashing red signal, most powerful lantern battery ever made.

PLUS A COMPLETE LINE OF STANDARD LIGHTS & BATTERIES

METAL-CLAD 6 volt battery for general outdoor applications!

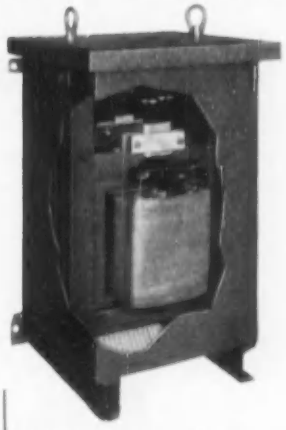
Little-Six and Giant-Six

1½ volt dry cells.

Flashlights are available in gleaming combinations of chrome and enamel.

BURGESS BATTERIES BURGESS BATTERY COMPANY FREEPORT, ILL.

these HEVI-DUTY features ASSURE CUSTOMER SATISFACTION



FULL PROTECTION
A heavy gauge steel case protects the core and coil

MOISTURE RESISTANT COILS
Coils are vacuum pressure impregnated with polymerizing type varnish

ENGINEERED ECONOMY
Designed for optimum copper to core loss ratio. The use of high grade non-ageing silicon steel assures low operating costs

SHORT CIRCUIT PROTECTION
Coils are rigidly blocked to withstand internal stresses

COMPLETE VERSATILITY
Brackets are provided for either floor or wall mounting

QUIET OPERATION
Core operates at a low flux density

WELCOME CONVENIENCE
A removable top cover exposes the large wiring compartment and facilitates installation

RIGID CONSTRUCTION
The core is tightly clamped between steel weldments

EASY CONNECTIONS
Extra long, heavily-insulated terminal leads are clearly marked for identification

HIGH DIELECTRIC STRENGTH
Coils are wound with double-insulated copper wire with large electrical clearance between coil and core

INCREASED SERVICE LIFE
Specially designed case directs air flow through coil ducts minimizing temperature rise

Write for Bulletin 100 describing the complete line of single phase power and lighting transformers from 50 VA to 500 KVA. Prices and distributor discounts also available upon request.

HEVI DUTY ELECTRIC COMPANY

HEAT TREATING FURNACES **HEVI-DUTY** ELECTRIC EXCLUSIVELY
DRY TYPE TRANSFORMERS—CONSTANT CURRENT REGULATORS
MILWAUKEE 1, WISCONSIN

Amazingly
COOL
HEAT
VENTILATED
REFLECTOR

NEW
MODEL 55-VCX-701
FOSTORIA
LOCALITE

FINEST OF ALL
LOCAL LIGHTING UNITS

$8.97 EACH
In Std. Pkg. of 4

MARVELOUS NEW
SEEING TOOL
Frictional arm and collar disc joints give flexibility of a thousand positions to direct light exactly as wanted. Rugged construction with heavy duty industrial socket, Levolier switch and universal base.

INNER SHIELD
ACCESSORY
for extreme coolness when using 100 WATT lamps.

WRITE for complete catalog of Localite Models for every industrial use.

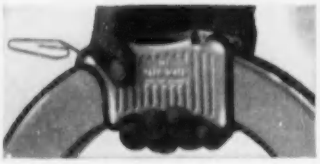
THE FOSTORIA PRESSED STEEL
CORPORATION, FOSTORIA, OHIO
Localites are available through wholesalers everywhere

LOCALITE
fostoria
for Light ON the Job

New TAPE-MATE
The Revolutionary FISH TAPE WINDER

Patent Pending

A NEW PRODUCT TO BUILD PROFITS!



Here's a revolutionary new product that will build profits for you. It proved to be a big hit at the NECA Show in San Francisco and contractors will be asking for the item at your counter.
Winds fish tape with an easy sliding action . . . under proper tension . . . push to wind, pull to pay out—that's all there's to it. Protects hands and saves tape. Fits all round 12" fish tape reels containing 1/8" flat fish tape. Compact and foolproof as the reel it attaches to. Stock TAPE-MATE now!

SEND NEW WIRING TOOLS CATALOG
NAME
FIRM
ADDRESS
CITY STATE

• SAFE-FAST-SURE
• SAVES TAPE
• STAYS ON REEL

Hi TRADE MARK REG.
HOLUB INDUSTRIES, Inc.
450 ELM ST. • SYCAMORE, ILL.

TAPE-MATE fits all "Hi" 12" fish tape reels or equivalent containing 1/8" flat fish tape.

Wiring Devices—Catalog No. 29, just published, is a revised and improved publication which includes many additions to the manufacturers line since the previous issue. Each page features clear, large-size illustrations of wiring devices or enclosed switches, with dimensions. Wiring diagrams are provided where helpful. In addition to product information, the book contains important ordering information and a price list. Index incorporates both an alphabetical and a sectional listing of the products described. A free copy may be obtained from The Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford, Conn.

Industrial Lighting—A quick-reference guide to 394 industrial fluorescent lighting units in the manufacturer's line has been published. The 36-page bulletin contains descriptions, illustrations and lighting data on all units, and provides concise up-to-date information on advanced lighting techniques possible with this equipment, according to the manufacturer. For additional convenience, a separate section contains a tabulation of coefficients of utilization for 22 of the most popular units. "Bulletin B" is obtainable from Benjamin Electric Mfg. Co., Des Plaines, Ill.

Service Station Lighting—Form 1082 illustrates and describes the company's complete line of service station lighting equipment including Skyliners—the all aluminum fluorescent "T" light—davit pole mounting, classic design straight aluminum poles, floodlights, hinged poles and Steberlites, components for sealed beam lamp flood or spotlighting. Write Steber Mfg. Co., Broadview, Ill.

Tapes—Four-page catalog No. 8101-E305 gives complete information on Bull Dog brand friction, rubber and plastic tapes. Illustrates space-saving containers, self-selling cartons, wall dispensers, shop packages and other merchandising packages and displays. Features information of new plastic electrical tape. Write Boston Woven Hose & Rubber Co., P. O. Box 1071, Boston 3, Mass.

Time Controls—A new 20-page information booklet is said to be a complete reference guide to multi-purpose and industrial time controls. It is also an up-to-the-minute check list of the manufacturer's line of time switches and timers. A fold-out reference chart clearly defines what each control is, what it does, where it may be used and how to select and purchase it. Copies of the free booklet may be obtained by writing to Paragon Electric Co., Two Rivers, Wis.

New Frontiers for Professional Managers

Ralph J. Cordiner
McGraw-Hill Book Co.
New York, N. Y.

In offering a practical philosophy for today's professional management men, the author who is president of General Electric Co., states that "responsible decentralization makes it possible to provide at once the big results that come from big enterprises, with the human freedom that comes from respecting the competence and dignity of every individual in the enterprise." His ideas on the place and prospects of major corporations in a tremendously expanding economy were first presented in the McKinsey Foundation Lecture Series, sponsored by the Graduate School of Business, Columbia University. The problem of how such companies can be organized and managed for the continuing good of their shareholders, employees and customers and the nation as a whole has been dealt with in this book with emphasis on how decentralization meets this problem.

128 pages

"SEALFLEX"
Liquid-Tite
Synthetic Covered Conduit

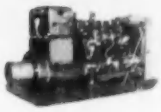
IMMEDIATE
TRADE AREA STOCK
SHIPMENT

Ask for Price Bulletin
ED-2

Quality . . . ALL METAL FLEXIBLE HOSE PRODUCTS
UNIVERSAL METAL HOSE CO.
2107 South Kedzie Avenue Chicago 23, Illinois

POWER
YOUR SALES WITH
Katolight
POWER PLANTS

STANDBY POWER PLANTS



Built to highest standards for dependability, long life — yet Katolight prices will help you clinch more, profitable sales. Sizes to 400 K.W. for every standby need.

PORTABLE POWER PLANTS

Handy, rugged, low-cost Katolight Portables are used the world over. Sizes 350 to 3,500 watts, up.

MOTOR GENERATOR SETS

Change D.C. to A.C., A.C. to D.C. 15 to 1000 cycles. Wide range of sizes.

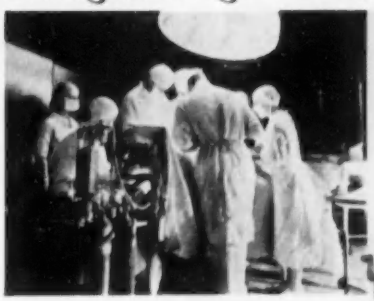
ROTARY CONVERTERS

Change D.C. to A.C. Widely used in communications, research, aircraft, boats. 110 to 2500 watts in standard or special frequencies or voltages.

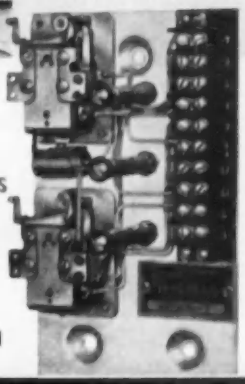
WRITE FOR NEW FOLDER!

KATOLIGHT CORPORATION
Box 891-92 Mankato, Minnesota

Safeguard against shock and Spark Hazards



GROUND
DETECTOR
RELAY
FOR UNGROUNDED EQUIPMENT
IN HOSPITAL OPERATING ROOMS



Recommended
SAFE PRACTICE
OF THE
National Board of Fire Underwriters
FOR
HOSPITAL OPERATING
ROOMS
AS RECOMMENDED BY THE
NATIONAL FIRE PROTECTION ASSOCIATION

ENGINEERING
REPRESENTATIVES IN
PRINCIPAL CITIES.

Signal Engineering & Mfg. Co. has changed its name to
Wheelock SIGNALS INC
RELAYS W S LONG BRANCH, N. J.

SODER JOINTS NEED ALLEN STRENGTH

Allen's Stainless Steel Flux and Soder Make Stronger Joints Everytime!

Stainless Steel Soder . . .

Gives joints of unusual strength. The precise alloy needed for all around soldering of stainless steel. Choose from two grades:
a) extra strong— in bar or wire form
b) never dull— in wire form only

and Flux

Here's a remarkable, fast flux that makes the soldering of stainless steel as easy as soldering tin plate. Sold only in pints and gallons. (Also available in a special odorless formula where less strength is required).

Allen Sodering Salts

An all around flux in convenient powder form; just add water 3 to 5 times according to metal to be sodered. Soders all metals but aluminum. Takes a quick bite and makes the soder hold on. Non-acid.

Allen Sodering Liquid

Standard Formula. For all-around work, for all metals save aluminum and stainless steel. 17,000 pounds to the square inch with no gumming, fumes, or corrosion. Double strength, non-evaporating.

Allen Sodering Paste

Standard Formula, safest sodering paste made—fast working—a convenient corrosion-free, soft form of flux. Adheres to the surface while you soder.

AT IT SINCE '93 ALLEN

Get Free Soder Charts! Full of vital information—write today.

Product samples are, of course, always available.

L.B.ALLEN CO. INC

6706B Bryn Mawr Ave., Chicago 31, Illinois

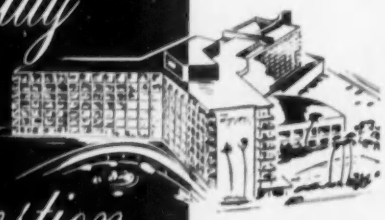
Canada Looks Ahead

Grace Laugharne
Royal Institute of International Affairs
New York, N. Y.

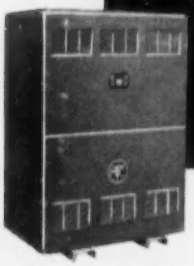
The population of "the vast unoccupied continent to the north" is only two-thirds of one per cent of the world's; however the part played by Canada in the world economy is far more important than the small size of her population might suggest. She now ranks seventh among the industrial nations of the world. Her output of electricity nearly equals that of the United Kingdom. The cost of electricity is relatively low (except for the scattered rural populations); residential and commercial customers pay about half, and industry less than a third, of the rates prevailing in the U. S. Only a small amount of Canada's electricity goes to domestic and farm use, although 87 per cent of all households are wired. These are examples of pertinent statistics and information with which this economic study of Canada abounds. It also contains interesting commentary on Canadian political affairs—both internal and external.

158 pages

FOR *Quality* WITHOUT *Question*



The Beverly Hilton uses only the finest, from champagne to transformers.



450 KVA, three phase, dry type transformer. Primary 480 Secondary 208Y/120, 4—2 1/2% FCBN

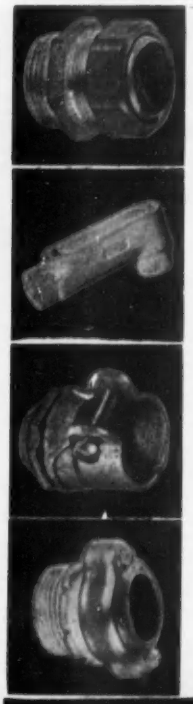
The fabulous Beverly Hilton has installed Marcus Transformers with a total capacity of approximately 2000 KVA. This guarantees them complete dependability and uninterrupted, trouble-free service for their power and lighting distribution.

A complete line of dry and liquid-filled transformers up to 5000 KVA.

Representatives in Principal Cities

"Mark of Quality"

Marcus TRANSFORMER CO., Inc.
RAHWAY, NEW JERSEY



FOR MODERN QUALITY FITTINGS *Specify* ATLANTIC

ACF

ATLANTIC CONDUIT FITTINGS COMPANY
BOSTON, MASSACHUSETTS

Shelving

The Frick-Gallagher Mfg. Co., Wellston, Ohio

"Quick-Bilt" shelving is easily assembled and easily rearranged. Starting with a basic unit—consisting of base shelf, top shelf, back panel and two end panels—the user slides in as many shelves as needed, selects the required number of dividers from four sizes offered, snaps them in place, and the unit is ready to use. Shelves slide easily, can be raised or lowered without removing dividers even when loaded. A wide range of accessories is available. Metal units are finished in gray or green baked-on enamel.

Drink Dispenser

The Fischman Co., Philadelphia, Pa.

All-in-one plug-in unit contains everything necessary for quantity delivery of chilled carbonated drinks. Storage capacity is three 3-gal tanks plus five 1-gal jugs. Delivers choice of three flavors, plus plain sparkling soda. Unit has heavy steel frame, stainless steel dispensing surfaces and interior, effective insulation, blower type refrigeration system.

POWERCRAFT
STOCKS FOR IMMEDIATE SHIPMENT
PRIMARY BUS SUPPORTS

• Contractors, Industrials, and Utilities rely on the accuracy of these Bus Supports to meet exacting service conditions. Available for Indoor and Outdoor Service—flat or pipe mounting. Conform to NEMA standards. POWERCRAFT invites your inquiries on any special Bus Support requirement. Other POWERCRAFT Products . . . Indoor and Outdoor Disconnecting Switches, Bus Clamps, Power Connectors, Pipe Frame Fittings for 1¼" I. P. S. Pipe, and Clamp Insulator Supports.
Send for new catalog.

POWERCRAFT CORPORATION
2215 De Kalb St. Phone
St. Louis 4, Mo. Prospect 6-4532
Since 1932

GEM

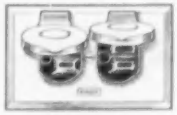
GEM ELECTRIC MANUFACTURING COMPANY, INC.
237 37th Street, Brooklyn 32, N. Y.

Specify KNOX WIRING DEVICES

Increased Sales and Profits

• FOR DOLLAR VALUE • FOR QUALITY
• FOR SERVICE • FOR SAFETY

15 A
125 V



No. 547
DUPLEX "U" GROUND
WEATHERPROOF RECEPTACLE
WITH SELF-CLOSING COVER

You'll find every KNOX product is made of fine quality materials . . . plus precision engineering and 33 years of manufacturing skill and "know-how" . . . a combination that assures you of a fine product, durable, safe and easily installed. For best results, specify KNOX.

Write for free Illustrated Catalog

KNOX PORCELAIN CORPORATION
KNOXVILLE 1, TENNESSEE

entrance cable fittings for 100-150-200 amp SERVICE

M&W

WATERTIGHT CONNECTORS 1", 1¼", 1½" and 2" Hub. ENTRANCE CABLE HEADS for 3-No. 3 to 3-No. 4/0. ENTRANCE CABLE STRAPS for 3-No. 2 to 3-No. 4/0. NON-WATERTIGHT CONNECTORS for 3-No. 2 to 3-No. 4/0. Just drop us a line on your company letterhead for latest, detailed catalog.

M&W Electrical Fittings
The M. & W. ELECTRIC MFG. CO., Inc.
EAST PALESTINE, OHIO

Calendar

L. D. Blehart Co., Mt. Vernon, N. Y.

A king-size 25 year wall calendar called "Sked-u-cal" has changeable monthly calendar cards with space for erasable notes. It is designed for planning and scheduling jobs, orders, deliveries, due dates, programs, meetings, etc. Backboard is lacquered masonite, calendar cards are medium-heavy cardboard laminated with plastic film. Memos are written with special pencils supplied with each unit, notations are erased with cloth or tissue. Can also be used as an advertising medium.

Fire Extinguisher

Ansul Chemical Co., Marinette, Wis.

A new stored-pressure water fire extinguisher with 2½-gal capacity has a special shut-off control which allows for most efficient use of water in the unit, also reduces water damage. The extinguisher has a range of 35- to 40-ft. It's UL rating is the highest given to units of this capacity for use on wood, paper and rag fires. After use, unit can be recharged by replacing water and pressurizing to 100-psi at any source of compressed air. Pressure gauge tells whether or not air pressure is adequate for use.

Portable Racks

Pressed Steel div. of Republic Steel Corp., Cleveland, Ohio

Portable stacking racks for handling and storage of package materials or products which cannot be stacked without support may be moved by fork lift or platform truck, according to inventory needs. At the same time, they can be stacked to any practical height, loaded or unloaded, to form either permanent or temporary warehousing facilities. Open sides of the units facilitate order picking, tally and inventory work. Units are made to specification.

MINERALLAC BEAM CLAMPS

FOR MOUNTING HANGERS ON I-BEAMS

Mounts Minerallac hangers No. 0 to No. 6 on I-Beams safely without necessity of drilling holes. Made of heavy gauge zinc plated steel with deep drawn ribs to give needed strength, these durable, light weight beam clamps have ¼-20 tapped holes—will fit beam flanges up to ⅝ inch thick. Furnished with case-hardened set screw. Low cost.

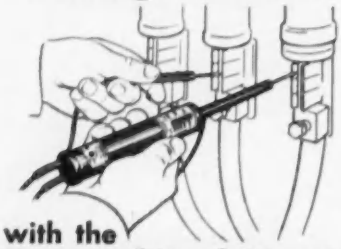
Order From Your Electrical Wholesaler

SEND FOR LITERATURE

MINERALLAC ELECTRIC COMPANY
25 North Peoria St. Chicago 7, Ill.

MINERALLAC

You'll be happy selling KNOPP Voltage Testers



with the Patented Prod-Mount

- *More user-value at Less Cost*— means more turnover for you at good profit margins
- *Five Safety Features*— Knopp Voltage Testers sell themselves
- *Rugged, Reliable*— build goodwill and repeat sales for you

Tell if circuit is open or closed; magnitude of voltage between 110 and 600 a-c or d-c, pure or rectified; 25 or 60 cycles.

Two models. Free Sales Aids. Write today for full details.

KNOPP INC.

Founded in 1928 by Otto A. Knopp under the name of Electrical Facilities Inc.

4283 Holden St., Oakland 8, Calif.

CONDUIT

Send for Catalog

CONDUIT NIPPLE MFG CO
1451 SPRING GARDEN AVE.,
PITTSBURGH 12, PA.

Eagle Electric Mfg. Co., Inc., Long Island City, N. Y.—Eagle Jiffy Push-Pull Plugs are now packaged in self-service displays. A convenient display carton holds 25 plugs (either brown or ivory) each mounted on an individual card. Flip-over top shows installation procedure, has slot for display of sample plug. Also available is a double-duty display card with easel for counter stand-up display and hole for wall hanging.

Chase & Sons, Inc., N. Quincy, Mass.—To protect Chase electrical tapes against harmful moisture and to help prevent peeling, drying out or raveling, each roll now is wrapped in Saran Wrap, according to the manufacturer. In addition, the new transparent packaging material clings to each roll of tape to form a neat, easy-to-handle package.

General Electric Co., Wiring Device dept., Providence, R. I.—Household electrical products—including wiring devices, cord sets and electrical specialities—have been given new packaging to increase self-selling and conserve counter space in dealer outlets.

EASY-DRIVE

THIEL

DRIVE STRAIGHT

THIEL Proves the Need of a STURDY—STRONG STAPLE. Drives Straight — Will not Bend under any Hard Hitting Punishment. All Cable Jobs MUST have the Sturdiest of Staples. THIEL has the Newest Improvement in these products — THIEL "Easy-Drive" — "Nail-It" — "Easy On" Straps. Sold by reputable Electrical Wholesale Dealers. Send for free samples.

1100 Small (S) Wire Thiel Staples to fit N.M.C. #10-14
1100 Large (L) Wire Thiel Staples to fit N.M.C. #16-12-14

THIEL TOOL & ENGINEERING CO., INC.
1417 N. MARKET ST. LOUIS 6, MO.

CLASSIFIED ADVERTISING
SELLING OPPORTUNITIES

AGENTS WANTED · LINES WANTED · POSITIONS WANTED · BUSINESS OPPORTUNITIES

RATES

UNDISPLAYED

$1.50 per line (effective Jan. 1957) minimum 3 lines. To figure advance payment count 5 average words as a line.

Box Numbers counts as 1 line.
Position Wanted ads are ½ the above rate.

Discount of 10% if full payment is made in advance for 4 consecutive insertions.

DISPLAYED

The rate for Employment Opportunities is $14.35 per inch (effective Jan. 1957) for all advertising appearing on other than a contract basis. Frequency rates quoted on request.
Subject to Agency Commission. Other advertising is $12.25 per inch (effective Jan. 1957). Not subject to agency commission.
An advertising inch is measured ⅞" vertically on a column—3 columns—30 inches to a page.

Send NEW ADS or Inquiries to Classified Adv. Div. of ELECTRICAL WHOLESALING
P.O. Box 12, New York 36, N.Y., for December issue closing November 14th

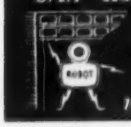
MFR'S REPRESENTATIVE WANTED

Prominent manufacturer of hack saw blades and hole saws desires additional representation in the electrical wholesale trade. We have two outstanding items to offer with some choice territories open. Reply to:

R.W. 1646 Electrical Wholesaling
330 W. 42nd St., New York 36, N. Y.

ROBOT OPERATORS

OPEN - CLOSE - LOCK DOORS, GATES
...Electronically



COMMERCIAL, INDUSTRIAL
RESIDENTIAL & SPECIAL
Write for Catalog
ROBOT APPLIANCES, INC.
7041 ORCHARD • DEARBORN, MICHIGAN

REPLIES (Box No.): Address to office nearest you c/o This publication Classified Adv. Div.
NEW YORK: P. O. Box 12 (36)
CHICAGO: 520 N. Michigan Ave. (11)
SAN FRANCISCO: 68 Post St. (4)

POSITION VACANT

One of the oldest and best independent Wiring Supply and Appliance distributors operating in 4 smog-free cities in Southern California needs experienced Salesmen and Countermen. Send complete information with photo to Electric Supplies Distributing Co., Box 1510, San Diego 12, Calif. Confidential.

SELLING OPPORTUNITIES OFFERED

Manufacturers Representatives Wanted. Established outlet box manufacturer. Territories presently open: Atlantic Sea Coast north of the Carolinas, Tennessee, Kentucky, Indiana and Ohio. Changes in other territories are also presently contemplated. RW-3177, Electrical Wholesaling.

Representative to call on established territory. Iowa and Illinois. Complete line of fluorescent and traditional modern and contemporary incandescent fixtures, nationally advertised. Commission basis or salary plus traveling. Other territories open. RW-3163, Electrical Wholesaling.

Representative to call on established territory. Tennessee and Kentucky. Complete line of traditional, modern and contemporary incandescent fixtures, nationally advertised. Commission basis or salary plus traveling. Other territories open. RW-3191, Electrical Wholesaling.

SELLING OPPORTUNITIES WANTED

Expanding Agency Covering Southeastern states desires additional lines. No lighting fixtures or fittings. RA-2851, Electrical Wholesaling.

Michigan Agent, very good references, with warehouse needs additional electrical lines, now selling electrical jobbers, broad acquaintance and years of selling. Wants underground duct-wiring devices-conduit fittings and etc., RA-3241, Electrical Wholesaling.

SALES PROMOTION and ADMANAGER

One of America's leading manufacturers of lighting fixtures is seeking the services of topflight sales promotion and admanager, preferably with experience in the lighting industry. Fine starting salary and plenty of room for growth if you're the man for the job. Tell us all about yourself—send complete resume to:

P-3085—Electrical Wholesaling
Classified Adv. Div., P.O. Box 12, New York 36, NY

LEGAL NOTICE

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF

ELECTRICAL WHOLESALING, published monthly at Philadelphia, Pa. for October 1, 1956.

1. The name and address of the publisher, editor, managing editor, and sales manager is: Publisher McGraw Hill Publishing Company, Inc., 330 West 42nd Street, New York 36, N.Y.; Editor, George Gaynor-Minkler, 330 West 42nd Street, New York 36, N.Y.; Managing editor, George P. Farley, 330 West 42nd Street, New York 36, N.Y.; Sales manager, C. H. Shaw.

2. The owner is McGraw Hill Publishing Company, Inc., 330 West 42nd St., New York 36, N.Y. Stockholders holding 1 per cent or more of stock are: Donald C. McGraw and William T. Chevalier, Trustees under Deed of Trust dtd. 1/14/31, as amended, with James H. McGraw, deceased; Donald C. McGraw and Harold W. McGraw as Trustees under Indenture w/h James H. McGraw dated 7/1/37, as amended; Donald C. McGraw, individually; Harold W. McGraw, individually; Elizabeth M. Webster, c/o Donald C. McGraw (all of 330 West 42nd St., New York 36, N.Y.); Mildred W. McGraw, Madison, New Jersey; Grace W. Malone, 516 Arenas St., La Jolla, Calif.; Geney & Co., P.O. Box 451 Church St. Station, New York, N.Y.; Merrill, Lynch, Pierce, Fenner & Beane, 70 Pine St., New York, N.Y.; Tweedy, Browne & Co., c/o Wellington Fund, Inc., Clayton, Delaware.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

McGRAW HILL PUBLISHING COMPANY, INC.
By John J. Cooke, Secretary

Sworn to and subscribed before me this 14th day of September, 1956.
[SEAL]

JANET A. HARTWICK
(My commission expires March 30, 1957)

NEW PRODUCTS TO SAVE INSTALLATION TIME & COSTS by...

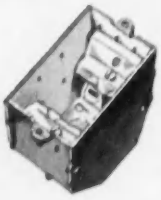
Arrolet

Contractors Told Us What They Needed . . . We Designed these boxes . . . Now They're In Our Standard Line Doing A Terrific Job!

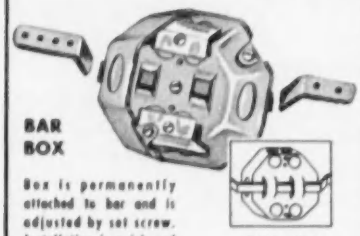
BEVEL CORNER SWITCH BOX

2¼" Deep, Non-Gangable

Nail-on type with notches indicating mounting depth. Available with plaster ears and various types of mounting brackets. Clamps can be mounted with screw through bevel on back.



Cat. No. 160-NG



BAR BOX

Box is permanently attached to bar and is adjusted by set screw. Installation is quick and easy. Available with romex clamps on any type bar.

BACK VIEW

Cat. No. AB13NSL

Arrolet products have hot-dipped galvanized finish, many times heavier than U.L. & Federal specifications.

When you have an installation problem not covered by our standard line, our engineers will design special units to your specifications.

Write for Our New Catalog.

Arrolet CORPORATION

MONTGOMERY PENNA.

Sales Representatives & *Warehouse Stocks

BALTIMORE, MD. • CHARLOTTE, N.C. • *CHICAGO, ILL. • *CINCINNATI, OHIO • DENVER, COLO. • *LOS ANGELES, CALIF. • *MIAMI, FLA. • NEW ORLEANS, LA. • NEW YORK, N.Y. • NEWTON CENTRE, MASS. • *PHILADELPHIA, PA. • ROCHESTER, N.Y.

ADVERTISERS' INDEX

Acme Electric Corporation 124
Advance Transformer Company Second Cover
All-Steel Equipment, Inc. 35
Allen Co., Inc., L. B. 160
Aluminum Company of America 136
American Blower Corporation 86
American Steel & Wire Division U. S. Steel Corporation 42, 43
Amplex Corporation 133
Amprobe, A Division of Pyramid Instrument Corporation 149
Anaconda Wire & Cable Company 141
Appleton Electric Company 99, 100
Arro Expansion Bolt Company 110
Arrolet Corporation 164
Arrow-Hart & Hegeman Company, The 128, 129
Atlantic Conduit & Fittings Company 160
Atlas Electric Products Company 122
Auth Electric Company, Inc. 24
Blackburn Corporation, Jasper 49
Blackhawk Industries 31
Briegel Method Tool Company 96, 97
Buchanan Electric Products Corporation 89
BullDog Electric Products Company 104
Burgess Battery Company 157
Burndy Engineering Company 41
Bussmann Manufacturing Company Fourth Cover
Carol Cable Company, Division of the Crescent Company, Inc. 26
Certified Ballast Mfgrs. 113
Champion DeArment Tool Company 105
Chase-Shawmut Company, The 51, 52
Chase & Sons, Inc. 147
Circle Wire & Cable a Subsidiary of Cerro de Pasco Corporation 17
Clark Controller Company 23
Columbia Cable & Electric Corporation 38
Conduit Nipple Mfg. Company, Division of Pittsburgh Nipple Works, Inc. 162
Conduit Pipe Products Company 27
Crescent Insulated Wire & Cable Company 103
Curtis Lighting, Inc. 85
Cutler-Hammer, Inc. 125
Diamond Wire & Cable Company 112
Eagle Electric Mfg. Company, Inc. 151
Economy Fuse & Mfg. Company 1
Edwards Company, Inc. 145
Electric Tube Products 116
Emerson Electric Mfg. Company, The 138
Essex Wire Company, Paranite Wire & Cable Corporation 32
Fostoria Pressed Steel Corp., The 158
Fullman Mfg. Company 2
Furnas Electric Company 126
Gedney Electric Company 22
Gem Electric Mfg. Company, Inc. 161
General Cable Corporation 45
General Electric Company Apparatus Sales Division 93
Lamp Division 18, 19, 33, 34 137
Globe Lighting Products, Inc. 143
Guth Company, The Edwin F. 14
Hatfield Wire & Cable Division of Continental Copper & Steel Industries, Inc. 87
Hazard Insulated Wire Works 30
Hevi Duty Electric Company 157
Hexcel Products, Inc. 127
Holub Industries, Inc. 158
Hubbell, Inc., Harvey 107
Hunter Division of Robbins & Myers, Inc. 25
Ideal Industries, Inc. 139
Ilsco Corporation 155
I-T-E Circuit Breaker Company 111
Jefferson Electric Company 46
Jenkins Bros. 3
Katolight Corporation 159
Keystone Mfg. Company 130
Killark Electric Mfg. Company 115
Knopp, Inc. 162
Knox Porcelain Corporation 161
M & W Electric Mfg. Co., Inc., The 162
Marcus Transformer Company, Inc. 160
Marvel Rack Mfg. Company, Inc. 156
Midwest Electric Mfg. Company 6
Miller Company, The 88
Minerallac Electric Company 162
Monarch Electric Corporation 146
Multi Electric Mfg., Inc. 148
National Electric Products 135
Okonite Company, The 30
Paranite Wire & Cable Corporation, Division Essex Wire Corporation 32
Pass & Seymour, Inc. 13
Penn-Union Electric Corporation 39
Phelps Dodge Copper Products Corp. 15
Pierce Renewable Fuses, Inc. 154
Plymouth Rubber Company, Inc. Third Cover
Porcelain Products, Inc. 132
Powercraft Corporation 161
Pyle-National Company, The 117
Quadrangle Mfg. Company 140
Quaker & Quaker Pioneer Rubber Divisions, H. K. Porter Co., Inc. 11
Rawlplug Company, Inc., The 152
Remcon, A Division of Pyramid Instrument Corporation 131
Revere Electric Mfg. Company 153
Ridge Tool Company, The 123
RLM Standard Institute, Inc. 121
Rome Cable Corporation 20, 21
Royal Electric Corporation 90
Sangamo Electric Company 16
Sierra Electric Corporation 47
Sola Electric Company 36, 37
Spang Chalfant (Division of the National Supply Company) 119
Square D Company 4
Stonco Electric Products Company 48
Supreme Products Corporation 120
Thiel Tool & Engineering Company, Inc. 163
Thomas & Betts Company, The 44
Toledo Pipe Threading Machine Co., The 118
Trade-Wind Motorfans, Inc. 8
Triangle Conduit & Cable Co., Inc. 50
Trine Mfg. Corporation 142
Trippe Mfg. Company 154
Union Insulating Company 144
United States Rubber Company 94
Universal Clay Products Co., The 134
Universal Metal Hose Company 159
Utica Drop Forge & Tool Corporation 114
Vaco Products Company 108
Victor Ventilator Division (The Philip Carey Mfg. Company) 28, 29
Virden Company, John Co. 40
Weaver Company, J. A. 109
Western Insulated Wire Company 106
Wheelock Signals 159
Wiremold Company, The 150
Xcelite, Inc. 156
Youngstown Sheet & Tube Company, The 12

CLASSIFIED ADVERTISING
F. J. Eberle, Business Mgr.

SELLING OPPORTUNITIES 163

*found in all the best splices**

Sold only through recognized wholesalers

**The most widely used friction tape in the world.*

Plymouth RUBBER COMPANY, INC.

SINCE 1896

CANTON, MASSACHUSETTS

60th ANNIVERSARY

© PLYMOUTH RUBBER CO., INC. 1956

For voltages up to 600 . . .

There's a BUSS Fuse or FUSETRON Fuse to fit the needs of every user

If user wants Non-Renewable Fuses . . .

Sell BUSS One-Time Fuses

They save the user time and trouble because they get the same engineering care in manufacture as do all products carrying the BUSS Trademark.

Every BUSS One-Time fuse can be depended upon to operate as intended under all service conditions.

If user wants Renewable Fuses . . .

Sell BUSS Super-Lag Renewable Fuses

The big advantage of these fuses over all other renewable fuses comes from the prevention of useless interruptions of service caused by needless blows.

The reasons for this performance is found in the design of the fuse-case which assures good contact on the fuse link, even if the fuse is renewed by an inexperienced person — and by the time-lag built into the link that prevents the fuse from opening on motor starting currents or other harmless overloads.

If user wants fuses that — abolish all needless blows, stop overheating in panels and switches, protect motors against burnout . . .

Sell FUSETRON dual-element Fuses

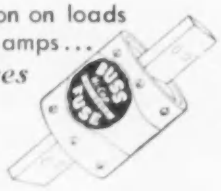
With rare exceptions, ordinary fuses or circuit breakers do not protect except against short-circuit but FUSETRON fuses provide TEN POINT protection.

1. Protect against short-circuits.
2. Protect against needless blows caused by harmless overloads.
3. Protect against needless blows caused by excessive heating — lesser resistance results in much cooler operation.
4. Provide thermal protection — for panels and switches against damage from heating due to poor contact.
5. Protect motors against burnout from overloading.
6. Protect motors against burnout due to single phasing.
7. Give DOUBLE burnout protection to large motors — without extra cost.
8. Make protection of small motors simple and inexpensive.
9. Protect against waste of space and money — permit use of proper size switches and panels.
10. Protect coils, transformers and solenoids against burnout.

FUSETRON dual-element FUSES save everybody time and money because they are made to PROTECT — not to blow.

If user wants SAFE protection on loads above 600 and up to 5000 amps . . .

Sell BUSS Hi-Cap Fuses



On voltages up to 600, high speed operation on heavy shorts limits current to safe values. This minimizes damage to equipment and cuts down dangerous stresses on transformers.

If user wants Plug Fuses . . .

Sell BUSS Clear Window Plug Fuses

Their one-piece body and "safety" design guarantees protection.

They are most convenient to use too, because real big window and white backgrounds permits entire fuse strip to be seen. Even in poor light a blown BUSS fuse is easy to find.

If user wants to reduce blowing of plug fuses . . .

Sell FUSETRON dual-element Plug Fuses

FUSETRON Plug fuses protect like ordinary fuses against short-circuits and overloads — but unlike ordinary fuses they won't blow on motor starting currents or other harmless overloads.

They are the type of fuses recommended in the 1953 National Electrical Code.

If user wants to make safe protection REMAIN SAFE as well as REDUCE blowing of fuses . . .

Sell BUSS Fustats (have Type S base)

FUSTATS like Fusetron Fuses have a dual-element and therefore, stop needless blowing — and they do more.

They have a type S base that prevents anyone from replacing them with a penny or substitute — or using a size too large to protect.

FUSTATS fit standard plug fuse holders by means of an inexpensive adapter that locks in place and needs never to be replaced.

To protect motors and apparatus of voltages up to 125 against burnout . . .

Sell 0 to 14 ampere BUSS Fustats

A FUSTAT of the proper size installed to handle only the motor current will reduce to a minimum the chance of a motor burnout from any excessive over-current. In like manner it will protect solenoids, coils or transformers against burnout.

FUSTATS have the same degree of Underwriters' approval for both motor-running and short-circuit protection as the most expensive devices made. They give all the protection it is possible to obtain with any device on the market.

For protection of TV, Radio, Instruments, Radar, Avionics and Electronic Equipment . . .

Sell BUSS and FUSETRON Small Dimension Fuses

A complete line is available. Made in Dual-element (slow-blowing), Renewable and One-Time types in sizes from 1/500 ampere up.

And there is a companion line of BUSS Fuse Clips, Fuse Blocks and Fuse Holders to take them.

BUSSMANN MFG. CO. Division McGraw Electric Co., ST. LOUIS 7, MO.